City Cy.

SPECIFICATIONS

COVERING

ADDITION TO THE WATER SYSTEM
CONTRACT NO. 1

FOR

CITY OF ATHENS
ATHENS, GEORGIA

Lauren M. Coile, Mayor

City Council

W. Calvin Bridges	Fred B. Leathers, Jr.
Dwain P. Chambers	Jerry F. Nicholson
Nancy Denson	Lewis Shropshire, Jr.
Hugh R. Hale	John E. Taylor
George M. Hester	Edward L. Turner

William T. Cook - Administrative Assistant
Denny C. Galis, City Attorney
H.L. Pittard - City Engineer
Benton H. Williams - Assistant City Engineer
Ralph Carter - Water Plant Superintendent
Boyd Mangum - Distribution Superintendent

JOB NO. 800023

DATE: JULY 21, 1980

Robert and Company Associates
Architects—Engineers—Planners
96 Poplar Street, N.W. Atlanta, Georgia 30303

ADDENDUM NO. 2

TO

SPECIFICATIONS AND CONTRACT DOCUMENTS

COVERING

ADDITIONS TO THE WATER SYSTEM - CONTRACT NO. 1

FOR

THE CITY OF ATHENS, GEORGIA

JOB NO. 800023-01 JULY 21, 1980

DATE OF THIS ADDENDUM: November 13, 1980

DATE OF BID OPENINGS: November 20, 1980-2:00 P.M., Local Time.

The Drawings, Specifications, and other Contract Documents are hereby revised as follows:

1. On Page 1B-4 of the Specifications, RIGHTS RESERVED, add the following:

   "b. The Owner will reject any bid submitted with a modification of the unit price established in the Proposal Form for Rock Excavation, Item 43 of the Proposal."

ROBERT AND COMPANY ASSOCIATES
ARCHITECTS-ENGINEERS-PLANNERS
96 POPLAR ST., N.W.
ATLANTA, GEORGIA 30335

ADDENDUM NO. 1

TO

SPECIFICATIONS AND CONTRACT DOCUMENTS

COVERING

ADDITIONS TO THE WATER SYSTEM - CONTRACT NO. 1

FOR

THE CITY OF ATHENS, GEORGIA

JOB NO. 800023-01 JULY 21, 1980

DATE OF THIS ADDENDUM: November 6, 1980

DATE OF BID OPENINGS: November 20, 1980-2:00 P.M., Local Time.

The Drawings, Specifications, and other Contract Documents are hereby revised as follows:

1. On page GC-10 of the Specifications, revise the last sentence of paragraph 21.a. to read as follows:

   "All rejected materials, equipment, or work shall be replaced with other equipment, materials, or work which conforms to the Drawings and Specifications, at no additional cost to the Owner."

2. On page GC-12 of the Specifications, delete paragraph 26.a. under LINES, GRADES AND MEASUREMENTS, and add the following:

   "a. The Contractor shall furnish two men of suitable ability to assist the Engineers in laying out alignment and grade and in the measurement of rock and other contract quantities. It is not intended to require two men with no other duties but the men shall be made available to the Engineers as required."

3. Under ROCK EXCAVATION on page DS-13 of the Specifications, delete the first paragraph at the top of the page and add the following:

   "When rock is encountered, the Contractor shall give the Resident Inspector a minimum twenty-four (24) hour notice to measure the rock before removal. No payment will be made for rock excavation without the measurements of the Resident Inspector at each location. At the option of the Contractor, the top elevation of rock shall be determined by one of the following methods:

a. The rock shall be stripped of earth and the Resident Inspector notified and given proper time to measure the rock before blasting.

b. With the Resident Inspector present, the Contractor shall employ a track drill or other suitable rock drilling equipment to penetrate the overburden down to solid rock. The top of rock elevation shall be determined by measuring the depth of the drill bit below the ground surface."

4. Under ROCK EXCAVATION on page DS-13 of the Specifications, the fourth paragraph from the top of the page shall be revised to read:

"Rock excavation shall be measured by the Resident Inspector and shall be the average actual length times a depth equal to 6" below the grade of the trench and the width shall be considered as 12" greater than the nominal diameter of the pipe being laid in the trench where rock is encountered."

5. On page DS-17 of the Specifications, after the last sentence under STERILIZING add the following:

"It will not be necessary to sterilize the 30" raw water main."

6. On Page DS-17 of the Specifications under ROAD CONSTRUCTION, revise the last sentence to read as follows:

"All fill shall be placed in layers not exceeding 6" in depth, loose measurement, and each layer shall be compacted to 95 percent of maximum density determined by the latest ASTM D698."

7. A subsurface investigation has been made at each tunnel location except the Southern Railroad Tunnel at Station 204+50. The Soil Report herewith attached and made a part of this addendum was prepared by Soil and Material Engineers, Inc. The information contained in this report is made available as an aid in evaluating subsoil conditions but is not to be construed as guaranteeing conditions throughout the site:

ROBERT AND COMPANY ASSOCIATES
ARCHITECTS-ENGINEERS-PLANNERS
96 POPLAR ST., N.W.
ATLANTA, GEORGIA 30303

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

ADDITIONS TO THE WATER SYSTEM

FOR

CITY OF ATHENS, GEORGIA

CONTRACT NO. 1

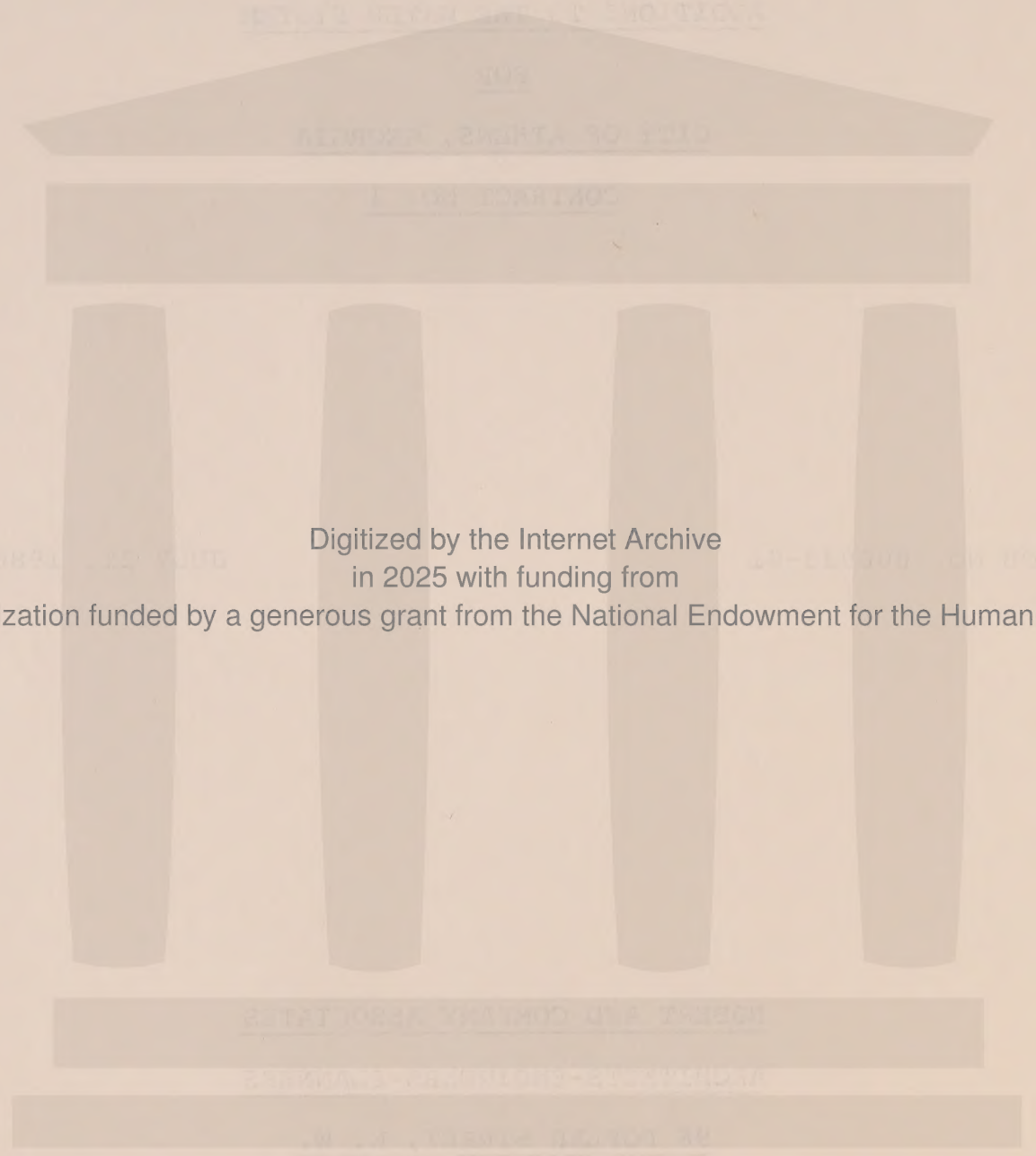
JOB NO. 800023-01 JULY 21, 1980

ROBERT AND COMPANY ASSOCIATES

ARCHITECTS-ENGINEERS-PLANNERS

96 POPLAR STREET, N. W.

ATLANTA, GEORGIA 30303



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ADVERTISEMENT FOR BIDS

ADDITIONS TO THE WATER SYSTEM

CITY OF ATHENS, GEORGIA

CONTRACT NO. 800023-01

Sealed bids will be received by the City of Athens, at the office of the City Engineer, City Hall, Athens, Georgia until 2:00 P.M., Local Time, November 20, 1980 at which time and place the bids will be publicly opened and read aloud. Proposals received after the time will not be considered.

The Contractor's bid will include the furnishing of all labor, materials, and equipment and for the construction of Additions to the Athens Water System.

The work consists of furnishing and installing approximately 20,100 L.F. of 30" raw main, 16,300 L.F. of 24" water main and 3,800 L.F. of 20" water main, including all valves, hydrants, fittings and other miscellaneous items of construction.

Plans, Specifications and Contract Documents are open to the public at the City Hall, Athens, Georgia and at the office of Robert and Company Associates, Architects-Engineers-Planners. A complete set of documents may be obtained from the office of Robert and Company Associates, Architects-Engineers-Planners, 96 Poplar Street, N.W., Atlanta, Georgia 30335. A non refundable deposit of thirty-five dollars ($35.00) is required for each set of documents.

No proposal will be considered unless accompanied by a certified check or acceptable Bid Bond in an amount not less than five percent (5%) of the bid and made payable to the City of Athens, Georgia.

All bids must be made out on the separate proposal form furnished with the contract documents in accordance with the instructions in the Instructions to Bidders. No interlineations, additions or deletions shall be made in the proposal form by the bidder.

Successful Bidder shall be required to furnish a Contract Performance Bond in the amount of 100% of the Contract price and a Payment Bond in the amount of 100% of the Contract price.

The Owner reserves the right, with or without notice or cause to accept any bid regardless of the amount thereof; to reject any bid, any number of bids or all bids; to negotiate with any

bidder for a reduction or alteration in its bid; to waive or insist upon formal requirements; to reject all bids and to call for additional bids upon the same or different invitation to bid, plans and specifications; to be the sole judge, in its discretion, of all questions as to whether or not a bid complies with the invitation to bid, the Plans or the Specifications, as to the qualifications of a bidder to perform the Contract, and as to the solvency and sufficiency of any and all Sureties on any and all bonds.

Bidders shall inform themselves concerning Georgia Laws and comply with same.

No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

The successful bidder shall commence work with adequate force and equipment on a date to be specified in a written order of the Engineers and shall complete the work within 365 consecutive calendar days from and including said date.

MAYOR AND COUNCIL OF THE
CITY OF ATHENS, GEORGIA

BY Lauren M. Coile
Mayor

SECTION IB

INSTRUCTIONS TO BIDDERS:

01. GENERAL:

a. Bidders are required to examine the Drawings, Specifications, and other Contract Documents carefully and to make such examinations of the site of the proposed work as are necessary to familiarize themselves with the nature and extent of the work to be done and with all local conditions which may affect the proposed construction. Bidders are also required to inform themselves fully in regard to construction and labor conditions under which the work will be performed. The Owner will not be responsible for Bidders' errors or misjudgment, nor for any information on local conditions or general laws and regulations.

b. Insofar as practicable, the Contractor shall so schedule his operations and employ such methods of carrying out the work that he will not cause any interruptions of, or interference with the work of any other Contractor.

02. LOCATION AND SITE:

a. The work included in this Contract is located in Athens, Georgia, in the location(s) shown on the Drawings.

The Contractor shall accept the site in its present condition and carry out all work in accordance with the requirements of the Specifications and as shown on the Drawings.

b. The present and finish grades may be shown on the Drawings, however, the Contractor shall, before submitting his bid, visit the site and acquaint himself with the actual conditions of the ground, and actual ground elevations, and the locations of any or all obstructions that may exist on the site.

03. MAKING BIDS:

a. All bids must be submitted on Proposal forms bound herein. All proposals must be signed in ink by the person, or persons authorized to sign same. Each item of the Proposal must be bid on.

04. AUTHORITY TO SIGN:

a. If a proposal is made by an individual, his name and Post Office address must be shown. If made by a firm, or partnership, the Partnership Certificate must be executed, and the

name and Post Office address of each member of the firm or partnership must be shown, and the Proposal shall be executed by the firm owner or partner. If made by a Corporation, the Corporation Certificate must be executed,and the person, or persons, signing the Proposal must show the name of the State under the laws of which the Corporation is chartered and his, or their, authority for signing same; and the names, titles and addresses of the President, Secretary, and Treasurer, and the Corporate authority for doing business in this State, and the Proposal shall be executed by the President or Vice-president.

05. SUBMITTING BIDS:

a. Each bid must be submitted in a sealed envelope, bearing on the outside the name of the Bidder, his or their adress, and date and hour of opening, and shall be marked on the outside as follows:

Proposal for Construction of the

Additions to the Water System

City of Athens, Georgia

Job No. 800023-01

06. BIDDER'S QUALIFICATIONS:

a. Proposals will be considered only from qualified, experienced, and well-equipped contractors.

b. The Onwer may require a contemplated awardee to submit a letter setting forth qualifications which entitle him to consideration as a responsible bidder and listing his experience on work of a similar character, and equipment available for this work.

07. INTERPRETATIONS:

a. Requests for interpretations of Drawings and Specifications must be made in writing to the Engineer. Such request must be received by the Engineer not later than five (5) days prior to receipt of Proposals. Any interpretations made to bidders will be issued in the form of Addenda to the Contract Documents and sent to all bidders.

08. WITHDRAWAL OF PROPOSAL:

a. No bidder may withdraw his bid for a period of sixty (60) days after the date set for the opening thereof.

09. REJECTION OF IRREGULAR PROPOSALS:

a. Proposals will be considered irregular, and may be rejected, if they show serious omissions, alteration of form, additions not called for, conditions or unauthorized alternate bids, or irregularities of any kind.

10. GUARANTEE TO ACCOMPANY PROPOSAL:

a. No Proposal will be considered unless accompanied by a certified check or acceptable Bid Bond in an amount not less than five percent (5%) of the bid and made payable to the Owner.

11. RETURN OF PROPOSAL GUARANTEES

a. All proposal guarantees made in the form of certified checks or cash, will be returned within ten (10) days following the opening of proposals, if requested, except those of the three lowest bidders, which will not be returned until after a satisfactory bond has been furnished and the Contract has been executed.

12. CONTRACT PERFORMANCE BOND AND PAYMENT BOND:

a. The Contractor will be required to furnish a Contract Performance Bond and a Payment Bond , each in an amount equal to 100 percent of the Contract price, as security for the payment on all persons performing labor and furnishing materials in connection with the Contract, and in accordance with the provisions of the General Conditions and Special Conditions. The form of the bonds shall be as attached to these Specifications and the Surety shall be acceptable to the Owner. In case of default on the part of the Contractor, all expenses incidental to ascertaining and collecting losses under the bonds, including both engineering and legal services, shall lie against the bonds.

b. The Contractor will be required to give a one-year guarantee covering workmanship and materials. The Contract Bonds shall remain in force for one year from date of final acceptance of the equipment, materials, and construction.

c. The Surety Bonds shall be countersigned by a local agent.

13. FAILURE TO EXECUTE CONTRACT:

a. Failure to execute contract, file acceptance bonds and furnish Certificates of Insurance, as provided herein, within

ten (10) days from the date of award, shall be just cause for the annulment of the award and for the forfeiture of the Proposal Guaranty to the Owner, not as a penalty, but in liquidation of damages sustained. At the discretion of the Owner, the award may then be made to the next lowest responsible bidder, or the work may be readvertised or constructed by day labor. The Contract and Contract Bonds shall be executed in quadruplicate.

14. INSURANCE, PROOF OF CARRIAGE:

a. The Contractor will be required to furnish the Owner and Engineer with satisfactory proof of carriage of the insurance required. Such proof shall be furnished to the Owner within ten (10) days of the date of the Notice of Award, and shall be in accordance with the General Conditions and Special Conditions.

15. RIGHTS RESERVED:

a. The Owner reserves the right, with or without notice or cause to accept any bid regardless of the amount thereof; to reject any bid, any number of bids or all bids; to negotiate with any bidder for a reduction or alteration in its bid; to waive or insist upon formal requirements; to reject all bids and to call for additional bids upon the same or different invitation to bid, plans and specifications; to be the sole judge, in its discretion, of all questions as to whether or not a bid complies with the invitation to bid, the Drawings or the Specifications,as to the qualifications of a bidder to perform the Contract, and as to the solvency and sufficiency of any and all Sureties on any and all bonds.

16. BIDDER'S NOTICE:

a. Bidders are hereby notified and agree by submission of their proposal that should, after award of the Contract, additional items not listed in the proposal become necessary and require unit prices not established by the Proposal, that the unit prices of such items shall be negotiated and shall be directly proportional to the established unit prices of similar items in the Proposal.

17. TIME:

a. Time is of utmost importance in the construction of this Contract. The successful bidder will be required to commence the Work with adequate force and equipment within ten (10) days of the date of the Notice to Proceed, and complete the Work within the time specified in the Proposal, from and including said date.

b. If said work is not complete within the time specified, the Contractor shall be liable to the Owner for liquidated damages and not as a penalty, in the amount stipulated in the Contract per calendar day for each and every day or part of a day thereafter that said work remains substantially incomplete.

18. AWARD:

a. The award will be made, as soon as practical, to that bidder who in the judgment of the Owner will best serve the interests of the Owner. This decision will be based upon the amount bid; the experience and qualifications of the bidder; the equipment to be supplied; and all other conditions set forth in these Contract Documents.

19. INFORMATION TO BE FURNISHED WITH PROPOSAL:

a. Each Bidder shall submit with his Proposal the names of manufacturers and representatives or vendors the bidder proposes to use, and on which his bid is based, for each item of equipment listed on the Proposal.

20. LOCAL AND STATE LAWS AND ORDINANCES:

a. The Contractor shall abide by all local and State laws or ordinances.

PROPOSAL

TO: THE CITY OF ATHENS
ATHENS, GEORGIA
ADDITIONS TO THE WATER SYSTEM
CONTRACT NO. 800023-01

GENTLEMEN:

The undersigned, as Bidder, hereby declares that the only person, company, or parties interested in this Proposal or the Contract to be entered into, as Principals, are named herein; and that this Proposal is made without connection with any other person, company, or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

That the Bidder has carefully examined and fully understands the Contract, Plans and Specifications, and other Documents hereto attached, and has made a personal examination of the site of the proposed work, and has satisfied himself as to the actual conditions and requirements of the work, and that he hereby proposes and agrees that if his Proposal is accepted, he will enter into Contract with the City of Athens, Georgia, in the form of Contract hereto attached, to furnish all necessary machinery, tools, apparatus, and other means of construction, and all materials, equipment, and labor necessary to construct and complete the work specified under the following items, and in the Contract, and called for by the Plans, in the manner specified and in the time mentioned, according to the requirements as hereinafter set forth, for the following prices, each price to include all cost incidental to the work to which it applies, to-wit:

BID SCHEDULE

Item No.	Description	Quantity	Unit	Unit Price	Amount
1.	Furnish & Install 30" D.I. Water Main	19,620	L.F.	$ 47.30	$928,026.00
2.	Furnish & Install 30" D.I. Restrained Joint Water Main	608	L.F.	$ 71.00	$ 43,168.00
3.	Furnish & Install 30" D.I. Ball Joint Water Main	205	L.F.	$522.00	$107,010.00

Item No.	Description	Quantity	Unit	Unit Price	Amount
4.	Furnish & Install 24" D.I. Water Main	16,430	L.F.	$ 34.50	$566,835.00
5.	Furnish & Install 24" D.I. Restrained Joint Water Main	366	L.F.	$ 52.00	$ 19,032.00
6.	Furnish & Install 20" D.I. Water Main	4,080	L.F.	$ 28.50	$116,280.00
7.	Furnish & Install 20" D.I. Ball Joint Water Main	205	L.F.	$382.00	$ 78,310.00
8.	Furnish & Install 16" D.I. Water Main	35	L.F.	$ 25.00	$ 875.00
9.	Furnish & Install 12" D.I. Water Main	40	L.F.	$ 21.00	$ 840.00
10.	Furnish & Install 10" D.I. Water Main	180	L.F.	$ 19.00	$ 3,420.00
11.	Furnish & Install 8" D.I. Water Main	120	L.F.	$ 17.00	$ 2,040.00
12.	Furnish & Install 6" D.I. Water Main	240	L.F.	$ 16.00	$ 3,840.00
13.	Furnish & Install D.I. Fittings	45.0	Tons	$3,300.00	$148,500.00
14.	Furnish & Install 36" Butterfly Valve & Box	2	Ea.	$8,950.00	$ 17,900.00
15.	Furnish & Install 30" Butterfly Valve & Box	2	Ea.	$7,030.00	$ 14,060.00
16.	Furnish & Install 24" Butterfly Valve & Box	5	Ea.	$3,900.00	$ 19,500.00
17.	Furnish & Install 20" Butterfly Valve & Box	2	Ea.	$2,900.00	$ 5,800.00

Item No.	Description	Quantity	Unit	Unit Price	Amount
18.	Furnish & Install 16" Butterfly Valve & Box	2	EA.	$3,440.00	$ 6,880.00
19.	Furnish & Install 12" Butterfly Valve & Box	2	Ea.	$1,920.00	$ 3,840.00
20.	Furnish & Install 10" Butterfly Valve & Box	7	Ea.	$1,700.00	$11,900.00
21.	Furnish & Install 8" Gate Valve & Box	4	Ea.	$ 520.00	$ 2,080.00
22.	Furnish & Install 6" Gate Valve & Box	9	Ea.	$ 400.00	$ 3,600.00
23.	Furnish & Install 16" x 16" Tapping Sleeve, Valve & Box	1	Ea.	$11,840.00	$11,840.00
24.	Furnish & Install 10"x10" Tapping Sleeve, Valve & Box	2	Ea.	$1,570.00	$3,140.00
25.	Furnish & Install 8"x8" Tapping Sleeve, Valve & Box	2	Ea.	$ 980.00	$1,960.00
26.	Furnish & Install Fire Hydrant	8	Ea.	$ 600.00	$4,800.00
27.	Furnish & Install 40 L.F. Casing Under Tallassee Rd.		L.S.		$22,400.00
28.	Furnish & Install 124 L.F. Casing Under Jefferson Rd.		L.S.		$68,400.00
29.	Furnish & Install 104 L.F. Casing Under Seaboard Coast Line Railroad		L.S.		$57,400.00

Item No.	Description	Quantity	Unit	Unit Price	Amount
30.	Furnish & Install 60 L.F. Casing Under Chase St.			L.S.	$ 33,300.00
31.	Furnish & Install 80 L.F. Casing Under Barber St.			L.S.	$ 44,300.00
32.	Furnish & Install 200 L.F. Casing Under U.S. 29 By-Pass			L.S.	$109,500.00
33.	Furnish & Install 40 L.F. Casing Under Southern Railroad			L.S.	$ 20,000.00
34.	Furnish & Install 2" Air Release Valve & Manhole	13	Ea.	$1400.00	$ 18,200.00
35.	Furnish & Install 1" Air Release Valve & Manhole	13	Ea.	$1175.00	$ 15,275.00
36.	Construct road from Chase St. to Barber St. including all Cross Drains		L.S.		$ 13,000.00
37.	Furnish & Place Crusher Run Base Material	1,000	Tons	$ 7.50	$ 7,500.00
38.	Pavement Replacement Type I	320	L.F.	$ 12.00	$ 3,840.00
39.	Pavement Replacement Type II	1,650	L.F.	$ 10.00	$ 16,500.00
40.	Pavement Replacement Concrete	90	L.F.	$ 11.00	$ 990.00
41.	Concrete Blocking & Miscellaneous Concrete	90	C.Y.	$ 150.00	$ 13,500.00

Item No.	Description	Quantity	Unit	Unit Price	Amount
42.	Trench Stabilization	2,000	C.Y.	$15.25	$30,500.00
43.	Rock Excavation	15,500	C.Y.	$25.00	$387,500.00

TOTAL AMOUNT BID BASED ON ALL D.I. PIPE --- $2,987,581.00
TOTAL AMOUNT BID BASED OF 30" PRESTRESSED CONCRETE PIPE FOR ITEMS NO. 1,2 & 3 - - - - - $2,892,851.46

ALTERNATE PROPOSAL
PRESTRESSED CONCRETE CYLINDER PIPE & FITTINGS

The Bidder has submitted a bid based on using Ductile Iron Pipe. If the Owner elects to use Prestressed Concrete Cylinder Pipe and Fitting in lieu of Ductile Iron Pipe and Fittings on any one size or on all sizes, the following amounts will be added to or deducted from the prices stated in the base bid. The Owner shall have the option of using either Prestressed Concrete Cylinder Pipe and Fittings or Ductile Iron Pipe and Fittings or a combination thereof.

NOTE: BIDDER SHALL INDICATE ADDITION OR DEDUCTION BY CROSSING OUT THE UNDERLINED WORDS NOT APPLICABLE.

44. (a) Furnish & Install 30" Prestressed Concrete Pipe
Add To or Deduct From Base Bid Item No. 1 $ 0.27 per foot

(b) Furnish & Install 30" Prestressed Concrete Fittings
Add To or Deduct From Base Bid Item No. 13 $25,487.28 L.S.

45. (a) Furnish & Install 30" Prestressed Concrete Bell Bolt Joint Pipe
Add To or Deduct From Base Bid Item No. 2 $ 14.74 per foot

(b) Furnish & Install 30" Prestressed Concrete Bell Bolt Joint Fittings
Add To or Deduct From Base Bid Item No. 13 $ 9,231.04 L.S.

46. Furnish & Install 30" Subaqueous Prestressed Concrete Pipe
Add To or Deduct From Base Bid Item No. 3 $ 223.18 per foot

47. (a) Furnish & Install 24" Prestressed Concrete Pipe
Add To or Deduct From Base Bid Item No. 4 $ 4.45 per foot

(b) Furnish & Install 24" Prestressed Concrete Fittings
Add To or Deduct From Base Bid Item No. 13 $ 2,673.84 L.S.

48. (a) Furnish & Install 24" Prestressed Concrete Bell Bolt Joint Pipe
Add To or Deduct From Base Bid Item No. 5 $ 4.99 per foot

(b) Furnish & Install 24" Prestressed Concrete Bell Bolt Joint Fittings
Add To or Deduct From Base Bid Item No. 13 $ 2,141.84 L.S.

49. (a) Furnish & Install 20" Prestressed Concrete Pipe
Add To or Deduct From Base Bid Item No. 6 $ 5.40 per foot

(b) Furnish & Install Prestressed Concrete Fittings
Add To or Deduct From Base Bid Item No. 13 $ 2,100.80 L.S.

50. Furnish & Install 20" subaqueous Prestressed Concrete Pipe
Add To or Deduct From Base Bid Item No. 7 $ 98.68 per foot

NOTE: In case of discrepancies between the figures shown in the unit prices and total amounts, the unit prices shall apply and the amounts shall be corrected to agree with the unit prices.

All Bidders must bid on every item as listed in the Proposal.

Proposals for construction of the Middle Oconee Raw Water Station, Job No. 800024, will also be received at the same time and place. Bidders may bid on either one or both contracts. Bidder submitting bids on both contracts will be afforded the opportunity of offering a lump sum deduct if awarded both contracts. This deductible lump sum amount, if offered, shall be deducted from the lump sum amount bid for the construction of the Middle Oconee Raw Water Station, Job No. 800024. The Owner reserves the right to award each contract to separate bidders or both contracts to one bidder.

It is understood and agreed that the quantities listed in this Proposal are approximate only and are intended principally to serve as a guide in comparing bids, and may be increased or decreased without invalidating the unit prices bid.

The Bidder agrees hereby to commence work under this Contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project within 365 consecutive calendar days thereafter as stipulated in the Specifications. The Bidder further agrees to pay as liquidated damages, the sum of two hundred and fifty ($250.00) dollars for each consecutive calendar day thereafter as hereinafter provided.

The undersigned furthermore agrees that, in case of failure on his part to execute said Contract and Bond within ten (10) days after being awarded the Contract, the check or bond accompanying

his bid and the money payable thereon shall become the property of the City; otherwise, the check or bond accompanying this proposal shall be returned to the undersigned.

Bidder acknowledges receipt of the following addendum:

No. 1 and No. 2

Attached hereto is a certified check or Bid Bond on the

Five Percent of Total Amount Bid

in the amount of

Dollars ($).

according to conditions under INSTRUCTION TO BIDDERS.

The full name and residences of persons or parties interested in the foregoing bid, as Principals, are as follows:

W. L. CAREY

P. O. Bo x 441

Royston, GA

Dated at Athens, GA the 20th day of

November, 1980.

W. L. CAREY, GENERAL CONTRACTOR, INC.

By W. L. Carey
PRESIDENT

The Bidder has based his bid upon and proposes to furnish equipment produced by the following:

Item No.	Equipment	Manufacturer	Representative or Vendor
1.	Gate Valves	Mueller	Consolidated Pipe & Supply
2.	Fire Hydrants	Mueller	Consolidated Pipe & Supply

SECTION BB

BID BOND:

KNOW ALL MEN BY THESE PRESENTS, that we W. L. CAREY, GENERAL CONTRACTOR INC.

(hereinafter called the Principal) and GULF INSURANCE COMPANY

(hereinafter called the Surety) a Corporation chartered and existing under the laws of the State of Missouri with its principal offices in the City of Dallas, Texas and authorized to do business in the State of Georgia is held and firmly bound unto the Mayor and Council of the City of Athens, a municipal Corporation of Clarke County, Georgia, in the full and just sum of

Five Percent (5%) of Bid Dollars ($)

good and lawful money of the United States of America, to be paid upon demand of the City of Athens, Georgia, to which payment well and truly be made, we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Athens, Georgia, a proposal for furnishing materials, labor and equipment to construct Additions to the Water System for the said City of Athens, Georgia, Job No. 800023-01 more particularly mentioned, and

WHEREAS, the Principal desires to file this bond in accordance with law, in lieu of a certified bidder's check otherwise required to accompany this Proposal.

NOW THEREFORE, the conditions of this obligation are such that if the proposal be accepted, the Principal shall within ten (10) days after receipt of notification of the acceptance thereof, execute a contract in accordance with the Proposal and upon the terms, conditions and prices set forth therein, in the form and manner required by the City of Athens, Georgia; and execute a sufficient and satisfactory Contract Performance Bond and Payment Bond payable to the City of Athens, Georgia, each in an amount of one hundred percent (100%) of the total contract price, in form and with security satisfactory to said City of Athens, Georgia, then this obligation to be void; otherwise to be and remain in full force and virtue in law; and the Surety

shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid City of Athens, Georgia upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this 20th

day of November, 19 80.

W. L. CAREY, GENERAL CONTRACTOR, INC.
Principal

By _____
President

GULF INSURANCE COMPANY
Surety

By _____

SECTION PC

PARTNERSHIP CERTIFICATE:

STATE OF _____

_____ COUNTY

On this _____ day of _____, 19____, before me

personally appeared _____

known to me to be the person who executed the above instrument, who, being by me first duly sworn, did expose and say that he is a general partner in the firm of _____

_____

and that said firm consists of himself and

_____

_____

and that he executed the foregoing instrument, on behalf of said firm for the uses and purposes stated therein, and that no one except the above named members of the firm have any financial interest whatsoever in said proposed contract.

_____

Subscribed and sworn to before me, this _____ day of

_____, 19____.

_____

Notary Public

My Commission Expires:

_____

SECTION CC

CORPORATE CERTIFICATE:

I, Ruby S. Carey, certify that I am the Secretary of the corporation named as Contractor in the foregoing proposal; that W.L. Carey, who signed said proposal in behalf of the Contractor was then President of said corporation, that said proposal was duly signed for and in behalf of said corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said corporation is organized under the laws of the State of Georgia.

This 20th day of November, 19 80.

Ruby S. Carey

L.S.

(SEAL)

SECTION C1

CONTRACT:

THIS AGREEMENT made and entered into this _____ day of _____, 19____, by and between the Mayor and Council of the City of Athens, Georgia (Party of the First Part, hereinafter called the Owner) and W. L. CAREY, GENERAL CONTRACTOR, INC.

_____

(party of the Second Part, hereinafter called the Contractor).

WITNESSETH: That the said Contractor has agreed, and by these presents does agree with the said Owner, for the consideration herein mentioned in his Proposal and under the penalty expressed in Bonds hereto attached, to furnish all equipment, tools, materials, skill, and labor of every description necessary to carry out and complete in good, firm and substantial and workmanlike manner, and work specified, in strict conformity with the drawings and the specifications hereinafter set forth, which drawings and specifications together with the foregoing Proposal made by the Contractor, the Instructions to Bidders, General Conditions, Special Conditions, Specifications and this Agreement, shall all form essential parts of this and this Agreement. The work covered by this Agreement includes all work shown on plans and specifications and listed in the Proposal, to-wit:

CONSTRUCTION OF
ADDITIONS TO THE WATER SYSTEM
CITY OF ATHENS, GEORGIA
JOB NO. 800023-01

The Contractor shall commence the work with adequate force and equipment on a date to be specified in the Notice to Proceed and shall complete the Work within the Contract Time of three hundred and sixty-five (365) consecutive calendar days from and including said date.

If said Work is not complete within the time stated above, the Contractor shall be liable and hereby agrees to pay to the Owner as liquidated damages and not as a penalty, the amount of two hundred and fifty dollars ($250.00) per calendar day for each and every day or part of a day thereafter that said Work remains substantially incomplete.

The Owner shall pay and the Contractor shall receive the prices stipulated in the Proposal hereto attached as full compensation for everything furnished and done by the Contract,

the Contract Price of Two Million, Eight Hundred Ninety Two Thousand, Eight Hundred Fifty One & 46/100 dollars ($ 2,892,851.46)

(Based on the quantities shown in the Proposal), which sum shall be paid in the manner and terms specified in the Contract Documents, but before issuance of certificate of payments, if the Contractor shall not have submitted evidence satisfactory to the Owner that all payrolls, material bills, and other indebtedness connected with the Work have been paid, the Owner may withhold, in addition to the retained percentages, such amount or amounts as may be necessary to pay just claims for labor and services rendered and materials in and about the Work, and such amount or amounts withheld or retained may be applied by the Owner to the payment of such claims.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Surety Bonds hereto attached for its faithful performance, the First Party shall deem the surety or Sureties upon such bonds to be unsatisfactory, or if, for any reason, such bonds cease to be adequate to cover the performance of the work, the Second Party shall, at its expense, within five (5) days after the receipt of notice from the First Party so to do, furnish an additional bond or bonds in such form and amount, and with such Surety or Sureties as shall be satisfactory to the First Party. In such event no further payment to the Second Party shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the First Party.

This Contract, executed in quadruplicate, constitutes the full agreement between the parties, and the Contractor shall not sublet, assign, transfer, pledge, convey, sell or otherwise dispose of the whole or any part of this Contract or his right, title, or interest therein to any person, firm or corporation without the previous consent of the Owner in writing.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement in quadruplicate, on the date first mentioned above.

ATTEST:

MAYOR AND COUNCIL OF
THE CITY OF ATHENS, GEORGIA
Owner

A C Fowler

By Lauren M. Caile SEAL
Mayor, City of Athens, Georgia

ATTEST:

W. L. CAREY, GENERAL CONTRACTORS, INC.
Contractor

J. Benson Myers

By W. L. Carey SEAL
President

APPROVED AS TO FORM:

BY: L. D. Datus
Attorney for Owner

Executed in
Quadruplicate

_____of 4.

SECTION CPB

CONTRACT PERFORMANCE BOND:

KNOWN ALL MEN BY THESE PRESENTS: That we W. L. CAREY, GENERAL CONTRACTOR, INC.

(herein called the Principal) and GULF INSURANCE COMPANY

(herein called the Surety) are held and firmly bound unto the Mayor and Council of the City of Athens, Georgia, (hereinafter known as the Owner) for the use of said obligee and all persons doing work or furnishing skill, tools, machinery, supplies or material under or for the purpose of the contract hereinafter referred to in the full and just sum of Two Million, Eight Hundred Ninety Two Thousand, Eight Hundred Fifty One & 46/100 Dollars ($2,892,851.46) lawful money of the ~~United States~~ of America, to be paid to said City of Athens, Georgia, its successors, and assigns to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bound Principal has entered into a contract or contracts with the said Owner, bearing date of _____ 19____ for furnishing material, labor and equipment to construct Additions to the Water System for the City of Athens, Georgia, Job No. 800023-01 more particularly mentioned, and

WHEREAS, it was one of the conditions of the award by said Owner pursuant to which said Contract was entered into, that these presents shall be executed.

NOW THEREFORE: The conditions of this obligation are such that if the above bound Principal shall in all respects fully comply with the terms and conditions of said Contract and his obligation thereunder, including the Specification and Proposal, therein referred to and made a part thereof, and such alterations as may be made in said specifications as therein provided for, and including one year guarantee period from date of

final acceptance and shall indemnify and save harmless the City of Athens, Georgia against and from all costs, expenses, damages, injury or loss, to which the said Owner, may be subjected by reason of any wrong-doing, misconduct, want of care or skill, negligence, or default, including patent infringement, on part of said Principal, his agents or employees, in the execution or performance of said Contract, and shall promptly pay all just claims for damages, or injury to property and for all work done, or skill, tools, and machinery, supplies, labor, and materials furnished and debts incurred by said Principal in or about the construction or improvements contracted for this obligation to be void; otherwise, in full force and effect.

And the said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder or the specifications accompanying same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations or additions to the terms of the Contract or to the Work or to the Specifications.

This Bond shall be for the use of all persons doing work or furnishing skill, tools, machinery, or materials, under or for the purpose of this Contract, in accordance with the provisions of Section 23-1705 et. seq. of the Code of the State of Georgia, as amended by the Act approved February 27, 1956, and is intended to be and shall be construed to be a bond in compliance with the requirements thereof.

The life of this Bond extends through the life of the Contract including the sixty-day maintenance period, where applicable, and until one year after the final acceptance of the Work by the Engineer.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed in quadruplicate, this _____ day of _____, 19 ____.

W. L. CAREY, GENERAL CONTRACTOR, INC.
Contractor

ATTEST:

J. Bevan Myers By W. L. Carey

Title President

GULF INSURANCE COMPANY
Surety

ATTEST:

Margaret S. Meyers By William L Ars

Title ATTORNEY IN FACT

COUNTERSIGNED:

By William L Ars
Local Agent

Executed in
Quadruplicate

_____of 4.

800023-01 CPB-3

SECTION PB

PAYMENT BOND:

KNOW ALL MEN BY THESE PRESENTS: That we W. L. CAREY, GENERAL CONTRACTOR, INC.

as Principal, and GULF INSURANCE COMPANY

as Surety, are held and firmly bound unto the Mayor and Council of the City of Athens, Georgia in the full sum of Two Million, Eight Hundred Ninety Two Thousand, Eight Hundred Fifty one & 46/100 Dollars ($ 2,892,851.46).

for the use and protection of said City of Athens, Georgia and all subcontractors and all persons supplying labor, materials, and machinery and equipment for the performance of the work provided for in the contract hereinafter referred to, for the payment of which well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally by these presents.

WHEREAS, the above bound Principal has entered into a contract or contracts with the City of Athens, Georgia dated the _____ day of _____, 19___, for furnishing material, labor and equipment to construct Additions to the Water System for the City of Athens, Georgia, Job No. 800023-01 more particularly mentioned, and

WHEREAS, it was one of the conditions of the award by said Owner pursuant to which said Contract was entered into, that these presents shall be executed.

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall promptly pay all subcontractors and all other persons supplying labor, materials, machinery and equipment furnished for the performance of the Work provided for by said Contract and such alterations or additions as may be made therein or in the Drawings and Specifications, then this bond to be void; otherwise, of full force and effect, and

The Surety to this bond, for value received, agrees that no change, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations or additions to the terms of the Contract or the Work or to the specifications.

It is agreed that this bond is executed pursuant to and in accordance with the provisions of Sections 23-1705 et seq., of the Code of the State of Georgia, as amended by the Act approved February 27, 1956 and is intended to be and shall be construed to be a bond in compliance with the requirements thereof.

IN WITNESS WHEREOF, the Principal and the Surety have caused these presents to be duly signed and sealed this _____ day of _____, 19___.

W. L. CAREY, GENERAL CONTRACTOR,INC
Principal

ATTEST:

J Berrow Myers

By W L Carey L.S.

Title President

GULF INSURANCE COMPANY
Surety

ATTEST:

Margaret S. Meyers

By William L Fox L. S.

Title ATTORNEY IN FACT

COUNTERSIGNED:

By William L Fox
Local Agent

Executed in Quadruplicate

_____of 4.

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That GULF INSURANCE COMPANY, a corporation of the State of Missouri, hereinafter called Company, Does hereby appoint

TRENTON TUNNELL, JR. OR WILLIAM L. HIX OR WINNIE L. NORRIS OR ROBERT L. POTTS, JR. OR LEROY N. MYHRE OR JERRY BOUTWELL OR JUDY D. AVERETT OR CINDY F. RICKS OR SANDRA JO FLOYD OR J. BENSON MYERS OR CHARLES R. UNDERWOOD OR FRED W. WOODWARD, JR.
ATLANTA, GEORGIA

its true and lawful Attorney-in-fact to make, execute, seal and deliver on its behalf, as surety, any and all bonds and undertakings of Suretyship.

The execution of such bonds or undertakings in pursuance of these presents shall be as binding upon the Company as if they had been executed and acknowledged by the regularly elected officers of the Company.

This Power of Attorney is issued pursuant to and by authority of the following resolution of the Board of Directors of the Company, adopted effective September 29, 1961, and now in full force and effect:

"Resolved that the President or any Vice President or any Secretary may appoint Attorneys-in-fact in any State, Territory or Federal District to represent this company and to act on its behalf within the scope of the authority granted to them in writing, which authority may include the power to make, execute, seal and deliver on behalf of this Company as surety, and as its act and deed any and all bonds and undertakings of suretyship and other documents that the ordinary course of surety business may require, including authority to appoint agents for the service of process in any jurisdiction, State or Federal and authority to attest to the signature of the President or any Vice President or any Secretary and to verify any affidavit or other statement relating to the foregoing, and to certify to a copy of any of the by-laws of the Company and to any resolutions adopted by its Board of Directors; and any such Attorney-in-fact may be removed and the authority granted him revoked by the President or any Vice President or any Secretary or by the Board of Directors."

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following resolution voted by the Board of Directors of the Gulf Insurance Company at a meeting duly called and held on the 24th of July, 1973.

"Resolved that the signatures of Warren J. Kwedar, President, or of Frederick Boger, Senior Vice President, or of Arthur C. Werden, Vice President, or of Jack W. Maynard, Vice President, or of William E. Elston, Vice President, or of Douglas Simpson, Secretary, or of R. C. Fetherston, Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Attorneys-in-fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

In witness whereof, the Company has caused this Power of Attorney to be signed and its corporate seal to be affixed by its authorized officer, this 11th day of Feb. 19 81.

GULF INSURANCE COMPANY CORPORATE SEAL MISSOURI (SEAL)

By J. W. Maynard
JACK W. MAYNARD — VICE PRESIDENT

STATE OF TEXAS }
COUNTY OF DALLAS } ss:

On this 11th day of Feb. 19 81, before me, a Notary Public of the State and County aforesaid, residing therein, duly commissioned and sworn, personally came the above named officer of the Company, who being by me first duly sworn according to law, did depose and say that he is that officer of the Company described in and which executed the foregoing instrument; that he knows the seal of the Company; that the seal affixed to such instrument is the corporate seal of the Company; and that the corporate seal and his signature as such officer were affixed and subscribed to the said instrument by the authority and direction of the Company.

NOTARY PUBLIC STATE OF TEXAS (SEAL)

Clifford R. Beard
CLIFFORD R. BEARD — NOTARY PUBLIC

My commission expires the 30th day of June 19 84.

CERTIFICATE

I, The undersigned, do hereby certify that the original Power of Attorney of which the foregoing is a true and correct copy is in full force and effect, and the foregoing resolution is a true and correct transcript from the records of the Company, and that the above named officer was on the date of execution of the foregoing Power of Attorney authorized to execute this Power of Attorney.

In witness whereof, I have hereunto subscribed by name and affixed the corporate seal of the Company this day of 19.

GULF INSURANCE COMPANY CORPORATE SEAL MISSOURI (SEAL)

Douglas Simpson
DOUGLAS SIMPSON — SECRETARY

Form 1 S 977 (9-73)

SECTION OA

OPINION OF ATTORNEY:

This is to certify that I have examined the attached Contract Documents, that after examination I am of the opinion that such documents conform to the laws of the State of Georgia that the execution of the construction Contract and the Contract Performance and Payment Bonds are in due and proper form, and that the representatives of the respective contracting parties have full power and authority to execute such construction Contract and Contract Performance Bonds on behalf of the respective contracting parties and that the foregoing agreements constitute valid and binding obligations on such parties.

Attorney for

City of Athens, Georgia

This, the 11 day of March, 1981.

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SECTION GC

GENERAL CONDITIONS:

01. DEFINITION OF TERMS:

a. Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

"Owner" refers to the public body or authority, corporation, association, partnership, or individual for whom the work is to be performed.

"Engineer" or "Architect/Engineer" shall refer to Robert and Company Associates, the Engineer appointed by the Owner as representatives of the Owner, and to their properly authorized agents limited by the particular duties entrusted to them.

"Resident Inspector" or "Inspector" refers to the representatives of Robert and Company Associates, authorized to observe the construction of the project, whose decisions shall be subject to the approval of the Engineer.

"Contractor" or "General Contractor" shall mean the individual, firm or corporation undertaking the execution of the work under the terms of the Contract and acting through its agents or employees.

"Subcontractor" shall mean any individual, partnership, firm, corporation, or other entity who either maintains an employee or employees on the project site for the purpose of prosecuting the work of this Contract or provides materials worked to a special design according to the drawings and specifications of this Contract. Subcontractor shall not mean the General Contractor nor any entity who merely furnishes materials not worked to special design.

"Bidder" refers to any person, firm or corporation submitting a Proposal for the Work.

"Bonds" refers to bid, performance, payment, and other instruments of security furnished by the Contractor and his surety in accordance with the Contract Documents.

"Proposal" refers to the offer, bid, or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

"Contract" shall mean the written agreement between the Owner and the Contractor covering the Work to be performed. Other Contract Documents are attached to the Contract.

"Contract Documents" shall consist of Addenda, Advertisement for Bids, the Bonds, Certificates of Insurance, Change Order, Contract, Corporate Certificate, Drawings, General Conditions, General Requirements, (if any), Instructions to Bidders, Notice of Award, Notice to Proceed, Partnership Certificate, Special Conditions, and Technical Specifications. The intent of these documents is to include all materials, appliances, tools, labor, and services of every kind necessary for the proper execution of the work, and the terms and conditions of payment therefor. The Contract Document shall be considered as one, and whatever is called for by one of them shall be as binding as if called for by all.

"Contract Time" shall refer to the number of days stated in the Contract for the completion of the Work.

"Contract Price" shall refer to the total moneys payable to the Contractor under the Contract Documents.

"Change Order" refers to a written order to the Contractor signed by the Owner authorizing an addition, deletion, or revision in the Work, or an adjustment to the Contract Price or Contract Time, and issued after execution of the Contract.

"Field Order" refers to a written order issued by the Engineer which clarifies or interprets the Contract Documents.

"Notice of Award" refers to the written notice issued by the Owner to the apparent successful bidder stating that upon compliance with the conditions precedent to be fulfilled by him within the time specified, the Owner will execute and deliver the Contract to him.

"Notice To Proceed" refers to the written notice issued by the Owner to the Contractor authorizing him to proceed with the Work and establishing the date of commencement of the Work.

"Specifications" refers to those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work. The Specifications generally consist of the General Requirements and Technical Specifications, as listed in the Table of Contents.

"Drawings" or "Plans" refers to those drawings which show the character and scope of the Work and include all drawings enumbered in the Index to Drawings and supplemental drawings, if any, identified elsewhere in the Contract Documents.

"Work" of the Contractor or Subcontractor shall include all labor, material, equipment, transportation, skill, tools, machinery and other equipment and things useful or necessary in order to complete the Contract.

"Shall" is mandatory; "may" is permissive.

02. APPLICABLE REQUIREMENTS:

a. The Work shall comply with the Contract Documents and with all applicable codes, laws and regulations of County, State or Federal agencies which may have cognizance of any part of the work. If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted by appropriate modification. If the Contractor performs any work knowing it to be contrary to such codes, laws or regulations, and without such notice to the Engineer, he shall assume full responsibility therefor and shall bear all costs attributable thereto.

b. In addition to safety and health requirements specified elsewhere in the Contract Documents, the Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) (and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54)).

03. CONTRACT SECURITY:

a. The Contractor shall furnish a contract performance bond and a payment bond, each equal to one hundred percent (100%) of the contract price. Bonds given shall meet the requirements of Georgia Code Section 23-1705. The surety on each bond shall be a surety company satisfactory to the Owner, duly authorized to do business in the State of Georgia, shall be listed in the Department of the Treasury Circular 570, and shall have an underwriting limitation in excess of 100% of the bid amount.

04. NOTICE AND SERVICE THEREOF:

a. Any notice to any Contractor from the Owner or the Engineer relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted by registered mail, to the said Contractor

at his last given address or delivered in person to said Contractor or his authorized representative on the work site.

05. SPECIFICATIONS:

a. The Specifications, the Drawings accompanying them, and the other Contract Documents, shall be supplementary to each other, and any material, workmanship, and/or service which may be in one, but not called for in the others, shall be as binding as if indicated, called for or implied by all.

b. The General Contractor will be held responsible to furnish all labor and materials necessary to complete the work as indicated by the Drawings and Specifications.

c. The General Contractor shall see to it that his work overlaps the work of all his Subcontractors on the job, and agrees to assume all responsibility for liability, workmanship and quality of material concerning any work done by said Subcontractor.

d. Each section or type of work is described separately in the Technical Specifications; however, should any item of material, equipment, work or combinations of such be required in one section, and not be described in that section and a similar item described in another section, that description shall apply regardless of the section under which it is described.

06. SPECIFICATIONS AND DRAWINGS TO BE SUPPLEMENTARY:

a. These Specifications and Drawings accompanying them are intended to describe and provide for a finished piece of work. They are intended to be supplementary, and what is called for by either shall be as binding as if called for by both.

b. The Contractor will understand that the Work herein described shall be complete in every detail, notwithstanding every item necessarily involved is not particularly mentioned and the Contractor shall be held responsible to provide all labor and material necessary for the completion of the indicated Work.

c. The Contractor shall, before the award of the Contract, report in writing to the Engineer any discrepancy which he may discover between the Drawings and the S pecifications. If the Contractor fails to call such discrepancy to the attention of the Engineer the subsequent decision of the Engineer as to which is correct shall be binding and final.

d. Should any error or inconsistency appear in the Drawings or the Specifications, the Contractor, before proceeding with the Work, shall make mention of the same to the Engineer for proper adjustment, and in no case shall he proceed with the Work in uncertainty.

07. PRESENT DOCUMENTS GOVERN:

a. The Contractor shall in no case claim a waiver of any specification requirements on the basis of previous approval of material or workmanship on other jobs of like nature or on the basis of what might be considered "standard" for material or workmanship in any particular location. The Contract Documents for this job shall govern the Work.

08. DRAWINGS:

a. The Drawings generally show work fully drawn out on only a portion of the drawings, the remainder in outline. The drawn out work must be understood as applying to other like or similar places.

b. Large scale or full size details will be furnished by the Engineer for work which, in their opinion, shall require such drawings and specifications, and as indicating additional work. Details shall be accurately followed, and any deviations therefrom shall be cause for the rejection of any work so executed.

c. All necessary dimensions are given on the Drawings and shall in all cases, except where a discrepancy occurs, be followed exactly.

d. The figures and notes on the Drawings, showing the indicated dimensions shall be used instead of scaling. No dimensions may be determined by scaling except the details drawn to a three inch scale or larger, and these only when dimensions are not specifically given.

09. CONTRACTOR'S SHOP DRAWINGS:

a. The preparation and submission of Shop Drawings shall be the responsibility of the Contractor.

b. Shop drawings to be furnished by the Contractor shall consist of such detailed drawings as may be required for the prosecution of the Work and are not included in the Drawings. Required Shop Drawings include all items listed in the Technical Specifications, and all such information as necessary to determine the suitability of items for their intended use, and compliance with the Contract Documents.

c. Shop drawings must be approved by the Engineer before the Work in question is performed. It is expressly understood, however, that approval by the Engineer of the Contractor's shop drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his shop drawings with the Drawings and Specifications.

d. It is the responsibility of the Contractor to check all shop drawings before same are submitted to the Engineer for approval. The Contractor's attention is directed to the fact that the Engineer will not check shop drawings which have not previously been checked and approved by the Contractor.

e. Shop Drawings shall be submitted only by the Contractor who shall indicate by a signed stamp on the drawings that he has checked the shop drawings and that the work shown on them is in accordance with contract requirements and has been checked for dimensions and relationship with work of all other trades involved. Under no conditions shall shop drawings be submitted to the Engineer by any other than the Contractor.

f. The approval of such shop drawings by the Engineer shall not relieve the Contractor from responsibility for deviations from Drawings or the Specifications unless he has in writing called attention to such deviations, and the Engineer has approved the changes or deviations in writing at the time of submission, nor shall it relieve him from the responsibility for errors of any kind in shop drawings.

10. PUBLISHED SPECIFICATIONS:

a. When other published and generally available specifications are referred to any identified on the Drawings and in these Specifications, it shall mean the latest edition thereof, and they shall become a part of these Contract Documents.

11. INSTRUCTIONS, CHANGES, ETC.:

a. All changes, alterations or instructions in regard to any feature of the Work that differ from the Drawings and other Contract Documents must be approved in writing in all cases, and no verbal orders will be regarded as a basis for claims for extra work.

b. If the Contractor claims that any instruction by drawings or otherwise involve extra cost or an extension of time, he shall so notify the Engineer in writing within ten (10) days after the receipt of such instructions and in any event before proceeding to execute the Work. Therefore, the procedure shall be the same as that described in Changes In The Work. No such claim shall be valid unless made in accordance with the terms of this section.

c. No claims for extra cost will be considered based on an escalation of material prices throughout the period of the Contract.

d. No extra work is to be performed or any changes made that involves any extra cost until the Engineer has authorized the Contractor to proceed, in writing, except in an emergency endangering life or property. The procedures for additional payment shall be as set forth under Changes In The Work.

12. EXAMINATION OF WORK BY CONTRACTOR:

a. It is understood and agreed that the Contractor, has by careful examination, satisfied himself as to the nature and location of the Work, the conformation of the ground, the character quality and quantity of the facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work or the cost thereof under this Contract. No verbal agreement or conversation with any officer, agent or employee of the Owner or the Engineer, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations herein contained.

13. MATERIALS, SERVICES AND FACILITIES:

a. The Contractor shall at all times employ sufficient labor and equipment for prosecuting the several classes of work to full completion in the manner and time specified. Failure of the Contractor to provide adequate equipment may result in the cancellation of the Contract as herein provided. The equipment to be used on the Work by the Contractor shall be sufficient size to meet the requirements of the Work and shall be such as to produce a satisfactory quality of work, all to be subject to the approval of the Engineer.

b. Materials and equipment shall be so stored and handled as to insure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection. No product which has in any way become unfit for the intended purpose shall be incorporated into the Work.

c. Manufactured articles, materials and equipment shall be applied, installed, connected, erected, cleaned and conditioned as directed by the manufacturer.

d. Materials, supplies and equipment to be incorporated into the Work shall be new and unused unless otherwise specifically stated in the Contract Documents. The source of supply for all such products shall be submitted to the Engineer, together with detailed descriptions thereof in the form of samples, shop drawings, tests or other means necessary to adequately describe the items proposed. If, after trial it is found that sources of supply, even though previously approved by the Engineer, have not furnished products meeting the intent of the Contract Documents, the Contractor shall thereafter furnish products from other approved sources, and shall remove completed work incorporating products which do not meet contract requirements.

e. Any work necessary to be performed after regular working hours, on Sundays or legal holidays, shall be performed without additional expense to the Owner.

f. Working hours will be between dawn and dusk, Monday through Friday; work outside these hours will be allowed only with written approval of the Owner.

g. The Contractor shall maintain an office with a telephone or other satisfactory means of contact.

14. "OR EQUAL" CLAUSE:

a. Whenever a material or article required is specified or shown on the Drawings by using the name of the proprietary product or of a particular manufacturer or vendor, it is intended to denote the quality standard of the article desired, but does not restrict Contractors to the specified brand, make or manufacturer so named. Any material or article which will perform adequately the duties imposed by the general design may be considered equal and satisfactory providing the material or article so proposed is of equal substance and function. The opinion of the Engineers shall be final and no substitute material or article shall be purchased or installed without their written approval.

15. INSPECTION AND TESTING OF MATERIALS:

a. Unless otherwise specifically provided for, the inspection and testing of materials and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories, or agencies approved by the Engineer. Unless otherwise specifically provided, all material inspection and testing cost will be paid by the Contractor. The Contractor shall furnish evidence satisfactory to the Engineer that the material and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the Work.

16. INSPECTION OF WORK:

a. The Contractor shall, at all times, permit and facilitate inspection of the work by authorized representatives of the Owner, the Engineers and Public Authorities having jurisdiction in connection with the work of this Contract. The Engineers shall interpret and enforce the terms of the Contract Documents, inspect the quality of the work and make recommendations con cerning payment for the acceptance of completed work. The

presence of the Engineers or their representative at the site of the work shall not be construed to, in any manner, relieve the Contractor of his responsibility for strict compliance with the provisions of the Contract Documents.

17. AUTHORITY OF ENGINEER:

a. The Contractor shall perform all of the Work herein specified under the general direction, and to the entire satisfaction, approval and acceptance of the Engineer. The Engineer shall decide all questions relating to the character of the Work performed and as to whether the rate of progress is such that the Work will be completed within the time limit of the Contract. Questions as to the meaning of these Contract Documents and questions relating to design will be referred to the Engineer.

b. The approval of the Engineer of any materials, plants, equipment, drawings, or of any other items executed, or proposed by the Contractor, shall be construed only to constitute an approval of general design. Such approval shall not relieve the Contractor from the performance of the Work in accordance with the Contract Documents, or from any duty, obligations, performance guarantee, or other liability imposed upon him by the provisions of the Contract.

c. The responsibility of the Engineer during construction shall be to make periodic visits to the site to observe the progress and quality of the Work; he will not make continuous on-site inspections. He will not be responsible for the Contractor's failure to perform the Work in accordance with the Contract Documents. Any defects or deficiencies in the work of the Contract observed during such visits will immediately be brought to the attention of the Contractor. The Engineer shall have the authority to stop the Work, if necessary to assure proper execution, and to disapprove work as not conforming to design.

18. AUTHORITY AND DUTIES OF INSPECTORS:

a. Inspectors shall be authorized to inspect all work done and all materials furnished, including preparation, fabrication and manufacture of the materials to be used, but they shall not be authorized to alter or waive any requirements of the Drawings, Specifications, or other Contract Documents. The Inspector may reject materials or suspend the work until any question at issue can be referred to and decided by the Engineer. The responsibility of the Contractor is not lessened by the presence of the Inspector.

19. NO PERSONAL LIABILITY:

a. In carrying out any of the provisions of the Contract or in exercising any power or authority granted to him thereby, there shall be no personal liability upon the Engineer nor upon any officer or employee of the Owner, it being understood that in such matters, they act as the agent and representative of the Owner.

20. PROHIBITED INTERESTS:

a. No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exectise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

21. REJECTION OF WORK AND MATERIALS:

a. All materials and equipment furnished and all work done that is not in accordance with the Drawings of Specifications or that is defective will be rejected. All rejected materials, equipment or work shall be removed immediately. If rejected materials, equipment or work is not removed within forty-eight (48) hours from the date of letter of notification, the Engineer shall have the right and authority to stop the Contractor and his work immediately, and/or shall have the right to arrange for the removal of said rejected materials, equipment or work at the cost and expense of the Contractor. All rejected materials, equipment or work which conforms with the Drawings and Specifications at no additional cost to the Owner.

b. Inspection of the Work shall not relieve the Contractor of any of his obligations to fulfill his contract and defective work shall be made good regardless of whether such work, material or equipment has been previously inspected by the Engineer and accepted or estimated for payment. The failure of the Engineer to condemn improper materials or workmanship shall not be considered as a waiver of any defect which may be discovered later, or for work actually defective. All work, material and/or equipment shall be guaranteed against defects for a period of one year from date of project acceptance as established by the Engineer.

22. DISAGREEMENTS:

a. Should any disagreement or difference arise as to the estimate, quantities or classifications or as to the meaning of the Drawings or other Contract Documents, or any materials and construction thereof, the decisions of the Engineer shall be final and conclusive and binding upon all parties to the Contract.

23. WEATHER CONDITIONS:

a. In the event of temporary suspension of Work, or during inclement weather, or whenever the Engineer shall direct, the Contractor will be required to protect all Work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure to protect such, all such materials or work shall be removed and replaced at the expense of the Contractor.

24. ROYALTIES AND PATENTS:

A. The Contractor shall hold and save the Owner and its officers, agents, servants and employees, harmless from liaility of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.

25. CONTRACTOR"S PERSONNEL:

a. An experienced superintendent and necessary assistants competent to supervise the particular types of work involved shall be assigned to the project by the Contractor, and shall be available at all times when work is in progress. The name of the superintendent shall be submitted with qualifications of same prior to start of the work and shall be approved by the Engineer prior to start of the Work. The superintendent so named by the Contractor shall be employed by the Contractor and shall have served in a supervisory capacity on at least one project of like description and size performed by the Contractor during the previous twelve months. Under no circumstances shall an employee of any subcontractor serve as project superintendent. The superintendent shall represent the Contractor, and all directions given to the superintendent shall be as binding as if given to the Contractor.

b. Only persons skilled in the type of work which they are to perform shall be employed. The Contractor shall, at all times, maintain discipline and good order among his employees, and shall not employ on the Work any unfit person or persons or anyone unskilled in the work assigned him. The Contractor shall discharge, at once, from his services voluntarily or when required by the Engineer, any disorderly, dangerous, insubordinate or incompetent person employed on the Work and shall not again employ said person on this project.

26. LINES, GRADES AND MEASUREMENTS:

a. The Engineers will set sufficient base lines, indicated datum level, and the dimensions on the plans and shall be responsible for all of his grades. He shall check carefully all dimensions before starting any work and report to the Engineers any discrepancies for correction.

b. The Contractor shall be responsible for the preservation of all lines, points and elevations furnished and shall bear the expense of resetting same, if through carelessness or negligence they are destroyed.

27. PERMITS AND LICENSES:

a. Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be secured and paid for by the Contractor. Permits, licenses, easements and land for permanent structures or permanent changes in existing facilities will be secured and paid for by the Owner, unless otherwise specified.

28. LAWS AND REGULATIONS:

a. The Contractor's attention is directed to the fact that all applicable Federal, State and County laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract Documents the same as though herein written out in full. The Contractor shall keep himself fully informed of all laws, ordinances and regulations of the Federal, State, and County in any manner affecting those engaged or employed in the Work or the materials used in the Work or in any way affecting the conduct of the Work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in

this Contract, or in the Drawings or other Contract Documents herein referred to, in relation to any such law, regulation, ordinance, order or decree, he shall herewith report the same, in writing, to the Engineer. He shall at all times himself observe and comply with all such laws, ordinances and regulations, and shall protect and indemnify the Owner and its agents against any such law, ordinance, regulation, order or decree, whether by himself or by his employees.

29. CONTRACTOR'S OBLIGATIONS:

a. The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the Work required by this Contract, within the time herein specified, in accordance with the provisions of this Contract, the Drawings, and other Contract Documents, and in accordance with the Work covered by this Contract and any and all supplemental drawings of the Work covered by this Contract and in accordance with the directions of the Engineer as given from time to time during the progress of the Work. He shall furnish, erect, maintain, and remove such construction, plant and such temporary works as may be required. He alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or oepration. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations of the Contract Documents, local ordinances, and State and Federal laws; and shall do, carry on, and complete the entire Work to the satisfaction of the Engineer and the Owner.

30. SUBCONTRACTING:

a. The Contractor shall not subcontract the complete Work, or any portion thereof, without prior written approval of the Engineer.

b. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

c. Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the Owner.

31. ASSIGNMENTS:

a. The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject ot prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract.

32. OTHER CONTRACTS:

a. The Owner may award other contracts for additional work and the Contractor shall fully cooperate with such other contractors and carefully fit his own work to that provided under other contracts as may be directed by the Engineer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor.

33. MUTUAL RESPONSIBILITY OF CONTRACTORS:

a. If, through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the Work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

34. CONTRACTOR'S HOLD HARMLESS AGREEMENT - INSURANCE:

a. The General Contractor shall be responsible from the time of signing the Contract, or from the time of the beginning of the first work, whichever shall be the earlier, for all injury or damage of any kind resulting from this work, to persons or property. The Contractor shall exonerate, indemnify and save harmless the Owner and the Engineer from and against all claims or actions, and all expenses incidental to the defense of any such claims, litigation and actions, based upon or arising out of damage or injury (including death) to persons or property

caused by or sustained in connection with the performance of this Contract or by conditions created thereby or arising out of or any way connected with work performed under this Contract and shall assume and pay for, without cost to the Owner or the Engineer, the defense of any and all claims, litigations and actions, suffered through any act or omission of the Contractor or anyone directly or indirectly employed under the supervision of any of them.

b. The Contractor shall obtain, maintain, and furnish the following along with Bonds and other Contract Documents sent to the Owner for execution:

1. Certificates of Insurance from licensed companies doing business in the State of Georgia and acceptable to the Owner covering:

    a. Statutory Workmen Compensation Insurance;

    b. Comprehensive Liability Insurance covering all operations and automobiles:

        With limits of $1,000,000/$3,000,000 Bodily Injury inclusive of protection against bodily injury due to excavation, shoring, underpinning, and blasting, to the extent to which such risks are present.

        With limit of $1,000,000 Property Damage, inclusive of protection against damage due to excavation, shoring, underpinning and blasting, to the extent to which such risks are present.

2. Certificates of Insurance must be executed in accordance with the following provisions:

    a. Certificates to contain policy number, policy limits and policy expiration date of all policies issued in accordance with this Contract;

    b. Certificates to contain the location and operations to which the insurance applies;

    c. Certificates to contain specific statement that blasting coverage is included to the extent to which such risk is present;

    d. Certificates to contain Contractor's protective coverage for any Subcontractor's operations;

e. Certificates to contain the following clause:

"Re: Change or cancellation: Policies certified will not be changed or cancelled without ten (10) days prior notice to the Owner and the Engineer, as evidenced by return receipts of registered or certified letters."

f. Certificates to contain endorsement incorporating Hold Harmless Agreement assumed by Contractor as follows:

On the front of the certificate, the certificate to contain the following clause:

"Re: Indemnification Agreement: Contract liability is included. See Indemnification Agreement clause on the reverse side of certificate."

On the reverse of the certificate, Hold Harmless Agreement as specified under 34a.

3. The Contractor shall be wholly responsible for securing certificates of insurance coverage as set forth in 34a for all Subcontractors who are engaged in this Work.

4. The Contractor agrees to carry statutory Workmen's Compensation Insurance and to have all Subcontractors likewise carry compensation insurance.

5. Builders Risk (Fire and Extended Coverage):

The Contractor shall purchase and maintain adequate fire and standard extended coverage insurance upon the project. The insurance shall provide protection at all times against loss by the Owner and Contractor until final acceptance of the entire project. This provision with respect to Builder's Risk Insurance shall in no way relieve the Contractor of his obligation of completing the work covered by the Contract.

35. SOCIAL SECURITY TAX:

a. The Contractor assumes and is liable specifically for all State and Federal so-called Payroll or Social Security Taxes and guarantees to hold the Owner harmless in every respect against same.

36. SALES TAX:

a. The Contractor assumes and is liable specifically for all State and Federal Sales and Use Taxes that may be in force at the time of the Award of the Contract, except taxes from which the Owner may be exempt.

37. LAND AND RIGHTS-OF-WAY:

a. Prior to entering on any land or right-of-way, the Contractor shall ascertain the requirements of applicable permits or easements obtained by the Owner and shall conduct his work in accordance with requirements thereof including the giving of notice. The Contractor shall be fully responsible for performing work to the requirements of any permit or easement granting entity even though such requirements may exceed or be more stringent than that otherwise required by the Contract Documents, and shall compensate the Owner fully for any loss or expense arising from failure of the Contractor to perform as required by such entity.

b. The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials.

38. ESTIMATE OF QUANTITIES:

a. The estimated quantities of Work to be done and materials to be furnished under this Contract if shown in any of the documents including the Proposal, are given only for use in comparing bids and to indicate approxiamtely the total amount of the Contract; and the right is especially reserved as except herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the Work contemplated by this Contract, and such increase or diminution shall, in no way, vitiate this Contract, nor shall any such increase or diminution give cause for claims or liability for damages.

39. USE OF PREMISES:

a. The Contractor shall confine his apparatus, the storage of materials, and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the Engineer and shall not unreasonably encumber the premises with his materials. The Contractor shall not load or permit any part of the Work to be loaded with a weight that will endanger its safety. The Contractor shall enforce the Owners instruc-

tions regarding signs, advertisements, fires and smoking.

40. PROTECTION OF WORK, PROPERTY AND PERSONS:

a. The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, lakes, drainage ways, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of contruction.

b. The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain as required by the conditions and progress of the Work, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the Work may affect them. The Contractor will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable solely to the fault of the Contract Documents or solely to the acts or omissions or the Owner or anyone employed by them and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

c. If existing utilities or structures are indicated by the Contract Documents, no warranty is made as to the accuracy or completeness of such indication. The Contractor shall, prior to commencing other on-site work, accurately locate above and below ground utilities and structures which may be affected by the Work, using whatever means may be appropriate. The Contractor shall mark the location of existing utilities and structures, not otherwise readily visible, with flagging, stakes, barricades, or other suitable means, and shall preserve and protect all utilities and structures not designated for removal, relocation or replacement in the course of construction. He shall notify the Engineer promptly on discovery of any conflict between the Contract Documents and any existing facility.

d. In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special insturction or authorization from the Engineer shall act to prevent threatened damage, injury or loss. He will give the Engineer prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Engineer for review. The amount of reimbursement claimed by the Contractor and approved by the Engineer on account of any emergency action shall be determined in the manner prescribed for Changes In The Work, and a Change Order shall thereupon be issued covering such claim.

41. CONTRACTOR'S RESPONSIBILITY FOR WORK:

a. All Work under this Contract shall be under the care of the Contractor and he shall take every necessary precaution against injury or damage to the same, until final written acceptance is received from the Engineer. The Contractor shall rebuild, repair, restore and make good, at his own expense, all damages or injury occasioned by the action of elements, or any other cause whatsoever, before its final completion or acceptance.

42. PRIOR USE BY OWNER:

a. Prior to completion of the Work, the Owner may take over operation and/or use of the incompleted project or portions thereof. Such prior use of facilities by the Owner shall not be deemed as acceptance of any Work or relieve the Contractor from any of the requirements of the Contract Documents.

43. CLEANING UP:

a. The Contractor shall clean up and remove accumulated dirt at such times as he may be directed to do so by the Engineer and he shall remove, at his own expense, from the Work and from the adjoining property all rubbish and surplus materials resulting from his operations, which may have accumulated during the process of the Work, and leave the Work in a neat and orderly condition upon completion. Clean up work shall include the removal of stumps, tree trunks, limbs and surplus rock from the job site, removal of all barricades and warning signs, and final dressing by bringing earth to original grade and seeding or sodding as required.

b. Failure to follow the Engineer's written directions as to cleaning up at any time within twenty-four hours after such directions are given, shall thereupon give the Owner the right to clean up at the expense of the Contractor.

44. BARRICADES AND WARNING SIGNS:

a. The Contractor shall provide, erect, maintain and finally remove all barricades and detour signs necessary to properly protect and divert traffic. Such barricades and signs shall be illuminated at night. The Contractor will be held responsible for all damage to the Work due to failure of the signs and barricades to properly protect the Work from traffic, pedestrians, animals and from all other sources. The Contractor will also be held responsible for damage to persons or property due to failure to erect and maintain adequate barricades and signs. The construction of all barricades shall be such as acceptable to the Engineer and affected agencies having control over traffic.

45. TRAFFIC UNDER CONSTRUCTION:

a. The Contractor shall expedite his work so as to interfere as little as possible with the traffic along and across the street and at entrances to property.

b. Where construction is within existing highway, street or road right-of-way, the Contractor shall determine the exact traffic control requirements of the state, county or city authority having jurisdiction over the right-of-way and shall provide, operate and maintain all signs, barricades, lights and flagmen required by the authority.

46. MAINTENANCE OF SERVICE:

a. All existing utilities, both public and private, including sewer, gas, water, electrical and telephone services, etc., shall be protected and their operation shall be maintained throughout the course of the Work. Any temporary shutdown of existing service shall be arranged between the Contractor and the responsible agency. The Contractor shall assume full responsibility and hold the Owner harmless from the result of any damage that may occur as a result of the Contractor's activities.

47. CHANGES IN THE WORK:

a. The Owner may order extra work, or make changes by altering, adding to, or deducting from the Work, the Contract sum being adjusted accordingly. All such orders and adjustments shall be in writing in the form of a Change Order. All such work shall be executed under the conditions of the original Contract, except that any claim for the extension of the time caused thereby shall be adjusted at the time of ordering such a change.

Upon receipt of a fully executed Change Order, the Contractor shall proceed with the Work involved.

b. The Engineer shall have the authority to make minor changes in the Work, not involving extra cost and not inconsistent with the purpose of the Work. These changes may be accomplished by means of a Field Order. If the Contractor believes that any minor change or alteration authorized by the Engineers entitles the Contractor to an increase in the Contract Price or an extension of the Contract Time, he may make a claim therefor as provided in Instruction, Changes, Etc.

c. Additional work performed by the Contractor, without authoriazation of a Change Order, will not entitle the Contractor to a change in the Contract Price or the Contract Time, except in the case of an emergency endangering life or property.

d. The value of any extra work or change which cannot be adjusted by an increase or decrease in Contract unit items shall be determined in one or more of the following ways:

1. By estimate and acceptance in a lump sum;

2. The actual cost, by keeping a correct account, including all vouchers, for:

    a. The actual payroll costs of all workmen, including foremen;

    b. The Contractor's net cost for materials entering permanently into the Work;

    c. The ownership or rental cost of construction plant and equipment during period of actual use of the extra work;

    d. The charges for extra power and consumable supplies;

    e. The pro rata charges for insurance covering Public Liability, Workmen's Compensation, Old Age and Unemployment and Social Security;

    f. To the cost of items enumerated above shall be added a fixed fee for combined overhead and profit, not to exceed fifteen percent of the enumerated items except that actual cost only will be allowed for social security, old age and unemployment insurance. The allowance for combined overhead and profit so calculated shall be the only such allowance included in the total cost to the owner. Among the items considered as overhead are costs for insurance other than

above, bond, superintendence, time keeping, clerical work, watchman, use of small tools, general office expense and miscellaneous.

48. TIME FOR COMPLETION AND LIQUIDATED DAMAGES:

a. It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning, rate of progress and the Contract Time are essential conditions of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the Notice To Proceed.

b. The Contractor agrees that said Work shall be prosecuted regularly, diligently and uninterrupted at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time described herein is a reasonable time for the completion of the Work, taking into consideration the average climate range and usual industrial conditions prevailing in this locality.

c. If the said Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner, the amount specified in the Special Conditions, not as a penalty, but as liquidated damages, for such breach of Contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the Work.

d. The said amount is fixed and agreed upon by and between the Contractor and the Owner, because of the impracticability and extreme difficulty to fixing and ascertaining the actual damages, the Owner would, in such event, sustain and said amounts shall be retained from time to time by the Owner from current periodical estimates.

e. It is further agreed that time is of the essence of each and every portion of this Contract and of the other Contract Documents wherein a definite portion and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be the essence of this Contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is due:

1. To any preference, priority or allocation order duly issued by the Government;

2. To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or the public enemy, acts of the Owner, acts of another contractor in the performance of a Contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; and

3. To any delays of Subcontractors occasioned by any of the causes specified in subsections 1 and 2 above.

f. Provided further, that the Contractor shall within ten (10) days from the beginning of such delay, notify the Engineer, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

49. PAYMENTS BY CONTRACTOR:

a. The Contractor shall furnish the Owner, whenever requested, with satisfactory evidence that all persons who have done work, or furnished materials under this agreement have been duly paid or satisfactorily secured. In case such evidence is not furnished aforesaid, such amounts as may be necessary to meet the claim of such unsatisfied person may be retained from monies due to the Contractor under this Contract, until the liabilities aforesaid shall be fully discharged.

50. PAYMENTS TO CONTRACTOR:

a. Contractor's Breakdown of Lump Sum Payment Items - The Contractor shall immediately after the Contract has been awarded, submit to the Engineer, breakdown showing estimates of all costs apportioned to the major elements of equipment, material and labor comprising the total work included under any of the lump sum items shown in the Proposal. These estimates as approved will serve as the basis for estimating of payments due on all progress estimates.

b. Monthly Progress Payments - The Owner shall make a monthly progress payment to the Contractor on the basis of a duly certified and approved estimate of work performed. To insure proper performance of this Contract, the Owner shall retain ten percent (10%) of the amount of each payment until final completion and acceptance of all work covered by this Contract.

c. Materials and Work Covered by Partial Payments - All materials and work covered by progress estimates shall, upon payment thereof, become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made, or the restoration of any damaged work, or the removal and replacement of any material or work which does not comply with the Contract Documents.

51. OWNER'S RIGHT TO WITHHOLD PAYMENTS:

a. The Owner, may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Owner from loss on account of:

1. defective work not remedied;

2. claims filed or reasonable evidence indicating probable filing of claims;

3. failure of the Contractor to make payments properly to Subcontractors or for material or labor;

4. a reasonable doubt that the Contract can be completed for the balance then unpaid;

5. failure to provide insurance, bonds, or an office with telephone or other satisfactory means of contact.

b. The Owner shall have the right to disburse and act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment therefrom. The Owner will render to the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor.

52. OWNER"S RIGHT TO SUSPEND OR TERMINATE WORK:

a. The Owner may, at any time and without cause suspend the work or any portion thereof for a period of not more than ninety (90) days or such further time as agreed upon by the Contractor, by written notice to the Contractor which shall fix the date on which work shall be resumed. The Contractor will resume that work on the date so fixed. The Contractor will be allowed an increase in the Contract Price or extension of the Contract Time, or both, directly attributable to any suspension.

b. If the Contractor is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, of if he repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction over the Work or if he disregards the authority of the Engineer, or if he otherwise violates any provision of the Contract Documents, then the Owner may, without prejudice to any other right or remedy and after giving the Contractor and his surety a maximum of seven (7) days from delivery of a written notice, terminate the services of the Contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract sum exceeds the direct and indirect costs of completing the Work including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.

53. CONTRACTOR'S RIGHT TO TERMINATE CONTRACT:

a. Should the Work be stopped by any public authority for a period of ninety (90) days or more, through no fault of the Contractor, or should the Owner fail to pay the Contractor any payment within a reasonable length of time after the payment shall become due, the Contractor, upon seven (7) days written notice to the Owner, may stop work, or terminate the Contract and recover from the Owner payment for all work executed.

54. MEASUREMENT OF WORK:

a. Measurement of Work, where applicable for payment purposes, will be in accordance with the General Requirements Section of the Specifications.

b. No extra or customary measurement of any kind shall be allowed in measuring the Work under this Contract; only the actual lengths, areas, solid contents, weights or numbers, as required by the terms of this Contract shall be considered,

and the lengths shall be measured on the center lines of the work, whether the same be straight or curved, unless otherwise provided in the General Requirements.

55. ACCEPTANCE OF WORK AND FINAL PAYMENT:

a. Before final acceptance of the Work and payment to the Contractor of the percentage retained by the Owner, the following requirements shall be complied with:

1. Final Inspection: Upon notice from the Contractor that his work is completed, the Engineer shall make a final inspection of the work, and shall notify the Contractor of all instances where his Work fails to comply with the Drawings and Specifications, as well as any defects he may discover. The Contractor shall immediately make such alterations as are necessary to make the Work comply with the Drawings and Specifications.

2. Liens: Final acceptance of the Work will not be granted and retained percentage will not be due or payable until the Contractor has furnished the Owner proper and satisfactory evidence under oath that all claims for labor and materials employed or used in the construction of the work under this Contract have been settled, and that no legal claims can be filed against the Owner for such labor or materials.

3. Final Estimate: When the work under this Contract is completed, a final estimate shall be submitted representing the original Contract sum plus or minus all Change Orders to the Contract. The final payment shall not be due until the Contractor shall have completed all work, necessary and reasonably incidental to the Contract, including final cleanup, and shall have delivered to the Owner a release of all liens arising out of the Contract, or receipts in full certifying complete payment for all materials and labor for which liens could be filed, or a bond acceptable to the Owner indemnifying the Owner against any lien.

4. Acceptance and Final Payment: All prior certificates or estimates upon which payments have been made shall be considered approximate only, and subject to correction in the final payment. The amount of the final estimate less the ten percent (10%) retained and less the sum of all prior payments will be paid to the Contractor within thirty (30) days after approval by the Engineer. The retained percentage will not be due or payable to the Contractor until after a sixty (60) day maintenance period, where applicable, during which time the Contractor will be required to maintain all work done by him in a first class manner.

b. Acceptance of the Work and the making of final payment shall not constitute waiver of any claims by the Owner. Payments otherwise due the Contractor may be withheld by the Owner because of defective work not remedied, liens filed, unadjusted damage to others by the Contractor or Subcontractors, vendors or laborers.

56. DEDUCTION FOR UNCORRECTED WORK:

a. If the Owner deems it expedient to accept Work injured or not done in accordance with the Contract, an equitable adjustment will be made with a proper deduction from the Contract price for unsatisfactory work.

57. GUARANTEE AND CORRECTION OF WORK:

a. The Contractor shall guarantee all Work to have been accomplished in conformance with the Contract Documents. Neither the final certificate of payment nor any provision of the Contract Documents, nor partial or entire occupancy or use of the Work by the Owner, shall constitute an acceptance of any part of the Work not done in accordance with the Contract Documents, or relieve the Contractor of liability for incomplete or faulty materials or workmanship. The Contractor shall promptly remedy any omission or defect in the Work and pay for any damage to other improvements or facilities resulting from such omission or defect which shall appear within a period of one (1) year from the date of final acceptance, unless a longer period is elsewhere specified. In the event that the Contractor should fail to make repairs, adjustments, or other remedy that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Contract Performance Bond shall remain in full force and effect through the guarantee period.

SPECIAL CONDITIONS

DESCRIPTION OF THE WORK:

In general, the work consists of furnishing all materials, labor, constructing and placing into permanent operation the following:

1. A 30" raw water main along Mitchell Bridge Road and U.S. 29 By-Pass from the Middle Oconee River to the Athens Filter Plant.

2. A 20" water main along Mitchell Bridge Road from the Middle Oconee River to Tallassee Road.

3. A 24" water main along U.S. 29 By-Pass from Tallassee Road to the Athens Filter Plant.

OBSTRUCTIONS:

All known existing and proposed obstructions are shown on the Drawings; however, the Contractor shall verify these on the ground and provide for all obstructions encountered and shall use utmost caution in all operations to avoid damage to existing pipes, conduits, cables, pole lines, structures, etc., whether or not shown on the Drawings. Any damage to existing structures or utilities shall be repaired or made good by the Contractor at no expense to the Owner.

The Owner will obtain the necessary permanent easements for construction across public and private property, streets, railroads, telephone lines, power lines, etc. The Contractor shall abide by all rules, regulations, and requirements of the Owner of such property in regard to the construction under this Contract, including the giving of notices, provisions for inspection, and employment of such methods of construction as may be required.

Wherever additional costs are incurred due to such requirements, all such costs shall be included in the prices bid. No additional compensation will be allowed for such costs after award of the Contract.

The intent of the Specifications is for the contractor to be entirely responsible for all obstructions, regardless of whether or not shown on the Plans. Any obstructions encountered at any time and in any location shall be provided for in the most practical manner. Utilities shall be kept in operation. Should it become necessary to install temporary lines, temporary pumps or other means for the continuous operation of utilities, all of

this work shall be done, maintained, operated, and removed upon completion, at no additional cost to the Owner. No trees are to be removed or severely pruned, except as approved by the Owner.

SHORING:

The Contractor shall provide all permanent and temporary piling, shoring, anchoring guy wire, and bracing reasonably required by the nature of his work, in order to make all parts absolutely stable and rigid, even when such piling, shoring, anchoring and bracing are not explicitly called for. He will be held strictly accountable for any damange resulting from failures to provide it, either through lack of proper judgment or for any other cause.

PROPERTY CONFINES:

The Contractor has no authority to permit the use of any portion of the premises by anyone, except for business connected with the construction in which this Contract is concerned.

STORAGE OF APPARATUS AND MATERIALS:

All equipment and materials shall be stored in such a manner as to insure the preservation of their quality and fitness for the work. Materials stored shall be located so as to facilitate prompt inspection and shall be confined to space designated by the Resident Inspector.

All such materials shall be stored so as not to interfere with the use of fire hydrants or construction facilities.

Should it become necessary at any time during the progress of the whole project to move materials which have been temporarily placed previous to their use in the construction, the Contractor shall, when so directed by the Engineers, move them without additional cost to the Owner.

The Contractor shall be responsible for all damage from unloading, handling and/or placing.

SALVAGED MATERIAL AND EQUIPMENT:

All material and equipment required to be removed and not reused in the new work, which are at salvage quality shall remain

the property of the Owner and shall be stored by the Contractor at the Owners storage yard and in the manner directed by the Engineers.

MAINTENANCE OF OPERATION AND SERVICES:

No utility (water, sewer, gas, telephone, electric, etc.) service shall be interrupted without the permission of the utility owner. Where any of the work may require an interruption of service, permission for such interruption must be obtained from the Superintendent of the Water and Sewer Department or from a responsible official of affected utility and the work shall be performed in accordance with and at such time as may be designated by the utility owner. No extra compensation will be allowed the Contractor because of requirements, restructions or limitations of work that may be required by the utility owner.

Tapping, plugging and connecting to existing water mains shall be done during periods of low demand and shall be performed at night, on week-ends or other times designated by the Owner. The Owner will cooperate with the Contractor in every way possible to insure that the work is completed on schedule. The number of shutdowns for connecting new work shall be kept to a minimum.

PLANS FOR CONSTRUCTION PURPOSES:

The Contractor will be furnished six (6) complete sets of Plans and six (6) sets of Specifications, applicable to the work required under this Contract for use during the course of construction. If additional sets are needed, the Contractor will be required to pay the actual cost of printing and handling.

SANITARY FACILITIES:

The Contractor shall provide ample sanitary toilet accomodations which meet the City and State regulations. He shall keep such places in a sanitary condition, and prior to the completion of the Contract, he shall remove all such structures and restore the site as originally found.

USE OF CHEMICALS:

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant,

polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in conformance with instructions.

ENVIRONMENTAL PROTECTION:

During construction the Contractor shall provide rows of hay bales, and/or other preventive measures as may be required by governing laws or ordinances to prevent siltation and soil erosion.

All such work shall be done without additional cost to the Owner.

The Contractor will restore all disturbed areas to their present or better condition upon completion of construction.

NATIONAL SAFETY CODE PROVISIONS:

The Contractor shall be responsible for keeping the Engineer advised of any conflicts due to any provisions or changes in the safety code which affect the work as shown on the Drawings, and described in the Specifications. It shall be the Contractor's responsibility to observe all provisions of the National Safety Code, keeping current with changing requirements, in all phases of the work at all times.

SAFETY AND HEALTH REGULATIONS:

In addition to safety and health requirements specified elsewhere in the Contract Documents, the Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupationsl Safety and Health Act of 1970 (PL 91-596) and under Sec. 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).

MAINTENANCE PERIOD:

A sixty (60) day maintenance period will be required. For sixty days from the date of final project acceptance, the Contractor shall fully maintain all work in proper operating condition. This includes all routine and special maintenance and necessary adjustments to equipment, as well as repair of defects or deficiencies

discovered. During this time the Contractor shall fully instruct the Owner's personnel in the operation and maintenance of all equipment or products furnished. The extent of operation will be as required by the Owner.

The maintenance period is supplemental to and in addition to the guarantee period.

RIGHTS-OF-WAY AND SUSPENSION OF WORK:

All lands and rights-of-way will be acquired by the Owner prior to the award of any construction contract upon which the work called for in the Contract is to be done. No complications are anticipated in obtaining the easements or right-of-way; however, should the Owner be prevented or enjoined from proceeding with the work, or from authorizing its prosecution, either before or after the commencement, by reason of his inability to procure any lands or rights-of-way for the said work, the Contractor shall not be entitled to make or assert any claim for damage by reason of said delay, or to withdraw from the Contract except by consent of the Owner; but time for completion of the work will be extended to such time as the Owner determines will compensate for the time lost by such delay, such determination to be set forth in writing.

DRAWINGS:

Following is a list of drawings which accompany and form a part of these specifications. These drawings have been prepared by Robert and Company Associates, Architects-Engineers-Planners, acting for the City of Athens, Georgia. Wherever the terms "Drawings" or "Plans" occur in any of the Specifications or Contract Documents they shall refer to these drawings.

Additional details will be supplied if necessary during the progress of the work for further clarification of the plans. Such additional drawings shall be as binding upon the Contractor as the original drawings.

LIST OF DRAWINGS:

Sheet No.	Drawing No.	Description
1	800023-01-1	Location Plan, Legend and List of Drawings
2	800023-01-2	Sta. 0+00 to Sta. 15+00
3	800023-01-3	Sta. 15+00 to Sta. 31+00
4	800023-01-4	Sta. 31+00 to Sta. 46+00

Sheet No.	Drawing No.	Description
5	800023-01-5	Sta. 46+00 to Sta. 61+00
6	800023-01-6	Sta. 61+00 to Sta. 77+00
7	800023-01-7	Sta. 77+00 to Sta. 92+00
8	800023-01-8	Sta. 92+00 to Sta. 107+00
9	800023-01-9	Sta. 107+00 to Sta. 122+00
10	800023-01-10	Sta. 122+00 to Sta. 137+50
11	800023-01-11	Sta. 137+50 to Sta. 153+50
12	800023-01-12	Sta. 153+50 to Sta. 169+00
13	800023-01-13	Sta. 169+00 to Sta. 185+00
14	800023-01-14	Sta. 185+00 to Sta. Plant
15	800023-01-15	Plant to Forbestein St.
16	800023-01-16	Road Construction Details
17	800023-01-17	Construction Details

REFERENCE TO OWNER:

a. All references in the Contract Documents pertaining to the City of Athens, the City, etc., shall refer to the "Mayor and Council of the City of Athens," the official legal title of the Owner.

BONDS:

a. Where the Bonds are required to be countersigned by a local agent, an agent in either Athens or the Metropolitan Atlanta Area shall be acceptable.

DETAIL SPECIFICATIONS

DUCTILE IRON PIPE:

All 6" and larger ductile iron pipe shall have push-on joints and shall be manufactured in accordance with the latest ANSI Specification A21.51 (AWWA C151) and shall be cement lined and coated in accordance with the latest ANSI Specification A21.4 (AWWA C104). All ductile-iron pipe shall have the following nominal wall thickness:

Pipe Diameter	Thickness Class	Nominal Thickness in Inches
30"	52	0.47
24"	51	0.41
20"	50	0.36
16"	50	0.34
12"	50	0.31
10"	50	0.29
8"	50	0.27
6"	50	0.25

Restrained joint ductile pipe shall be "Lok-Tyte" as manufactured by U.S. Pipe and Foundry Co. or "Lok-Fast" as manufactured by American Cast Iron Pipe Co. or approved equal.

Ball joint ductile pipe shall be "Flex-Lok Boltless" as manufactured by American Cast Iron Pipe Co. or "Usiflex Boltless" as manufactured by U.S. Pipe and Foundry Co.

MECHANICAL JOINT FITTINGS:

Fittings shall be ductile-iron mechanical joint fittings in accordance with the latest ANSI Specification A21.10. The outside shall be coated and the inside shall be cement lined in accordance with the latest ANSI Specification A21.4. All mechanical joint fittings shall be suitable for a minimum working pressure of 250 p.s.i. and shall be furnished complete with gasket, gland, nuts and bolts.

Restrained joint fittings shall have the same joint and the same manufacturer as the restrained joint pipe in which the fitting is included.

CONCRETE PRESSURE PIPE AND FITTINGS:

Concrete pressure pipe and fittings shall be prestressed concrete steel cylinder pipe and fittings manufactured in accordance with the latest AWWA Standard C301. Pipe and fittings may be either lined cylinder type or embedded cylinder type. Not less than Number 6 high tensile prestress wire shall be wound around the core in one or more layers.

Joints shall be sealed with an O-ring rubber gasket. End rings shall be self-centering and so designed that when the joint is completed, the gasket will be enclosed on four sides and water-tight under all conditions of service.

Fittings shall be either Type A - Steel cylinder with concrete or mortar lining, and reinforced concrete or mortar exterior coating; or Type B - Welded steel plate with mortar coating on interior and exterior surfaces.

All pipe and fittings shall be designed for an operating pressure of 200 p.s.i. in combination with the earth cover as shown on plans. In no case, however, will the design earth load be less than that due to 14 feet of cover with "ordinary" bedding. Where the pipe is to be laid under a roadway, it shall be designed to withstand a live load equal to AASHO H-20 loading. In addition, the design shall provide for surge pressure of at least 40 per cent of design pressure.

Outlets 6 inch and larger shall have mechanical joints. Outlets 2 inch and smaller shall have iron pipe threads.

Subaqueous joints shall have steel lugs and draw bolts located on the springline at each joint.

Restrained joint pipe shall be "Bell Bolt Joint" or "Bolt Harnessed Joint" as manufactured by Interpace Corp. or "Snap Ring Restrained Joint" or "Clamp Type Harness Joint" as manufactured by Price Brothers Co.

SMALL PIPING:

All 1" and 2" pipe shall be Schedule 40, galvanized steel pipe with threaded joints all in accordance with the latest AWWA Specification C800 and Appendix thereto.

BUTTERFLY VALVES:

All valves 10 inch and larger shall be butterfly valves conforming to all requirements of the latest AWWA Specification C504. All butterfly valves shall be designed for a working pressure of 250 p.s.i., shall have mechanical joints for buried service, shall open left (counterclockwise) and shall be equipped with a manual operator with an extension stem terminating with the operating nut one foot below ground surface. Operating nuts shall conform to present city standards.

GATE VALVES:

All 8" and 6" valves shall be mechanical joint, non-rising stem, double disc, parallel seat gate valves manufactured in accordance with the latest AWWA Specification C-500. All gate valves shall be designed for working pressure of 200 p.s.i., shall open left (counterclockwise) and shall be furnished with operating nut conforming to present city standards.

The gate valve body and bonnet shall be made of cast iron, meeting ASTM A-126, Class B; whereas bronze trim parts shall meet either of the following ASTM B-61, B-62, or B-98, as prescribed by C-500 for water with a specific conductance of more than 350 UMHO/CM, or having a high Ph. Furthermore, bronzes with more than 2% aluminum shall not be used to prevent the promotion of galvanic corrosion.

All valves shall be of the design that will permit re-packing under pressure in the fully open position. At least one O-ring is to be located above and below the stem thrust collar, thus permitting automatic lubrication of the thrust collar during the operation of the valve. A bronze stem collar bushing or bonnet bushing will be acceptable in lieu of the lubricant to assure ease of operation of the valve after extended periods of prolonged idleness.

The basis of structure design is such that should the valve stem failure ever occur during the opening or closing of the valve, the failure shall not be subjected to the pressure retaining parts such as the valve body or bonnet. This gives assurance that if excessive torque is applied, resulting in failure of the stem, the failure will be external, will be safely handled in a workmanlike manner, and permit the easy repair of the stem under adverse conditions. Should stem failure occur, the stem should be removable from the valve without removing or disassemling the valve body and bonnet.

All gate valves shall be Mueller or approved equal.

TAPPING SLEEVE AND VALVE:

Tapping sleeves shall be of the heavy cast iron split sleeve type with mechanical joints. Valves shall conform to the gate valve as specified herein.

The 16" tapping valve shall be for horizontal installation and shall be equipped with rollers, tracks, scrapers, by-pass valve and cut-tooth steel bevel gears enclosed in extended type gear case.

VALVE BOXES:

Valve boxes shall be sliding type, oval base, cast iron, roadway type boxes. Valve boxes shall have drop covers with the word "WATER" cast in raised letters on the cover. Extension stems shall be installed inside the valve boxes with operating nuts to within one foot of finished grade.

FIRE HYDRANTS:

Hydrants shall be manufactured to the latest and best design conforming to the current AWWA Specifications C-502, "Standard for Dry Barrel Fire Hydrants" and be of the breakable flanged valve design style.

Friction losses through the hydrant shall not exceed 3.8 PSI at 1,000 GPM through the pumper nozzle and 1.25 PSI through two hose nozzles simultaneously when tested as outlined by AWWA C-502.

The hydrant main valve shall close with the pressure, and all operating parts, including valve seat, valve seat insert, cross arm, and upper valve washer shall be all bronze meeting either of the following: ASTM B-61, B-62, B-98, or B-150, as prescribed by C-502.

Hydrant operating threads shall be contained in an oil reservoir sealed away from the water, moisture, and foreign matter by O-ring seals, and shall further be protected by the use of a weather shield or nut.

Hydrants shall be easy and economical to install and maintain, shall incorporate no parts requiring field adjustment, and shall place the nozzle at least 18 inches above the hydrant ground line to fully comply with the National Fire Prevention Association fire protection handbook, 13th edition.

Hydrant barrels shall be cast of gray iron, meeting ASTM A-126, Class B, with hydrant shoes and glands being of the same material. Should ductile iron be used in the lower barrel of the hydrant, then the shoe connection and upper barrel shall also be of ductile iron. Designs shall be such that easy installation of top extensions and a full rotation (360^{O}) of the upper barrel without shutting off water to hydrant can be accomplished at any time.

Hydrants shall have one (1) 4-1/2" pumper nozzle, NST, two (2) each 2-1/2" hose nozzles NST, 1-1/2" pentagon, open left, and be capable of withstanding turning torques in the fully open or closed position of 200 foot pounds. Existing thread specifications shall have precedence over this requirement so as to assure a standard thread throughout the fire protection system. Hydrants shall be suitable for the bury as specified on the drawings, painted red, and shall include 6" mechanical joint complete with accessories.

Hydrants shall be Mueller "Centurian" or approved equal.

TUNNEL LINER CASING:

All pipe casing shall be tunneled using tunnel liner plates. At all locations where both the raw water main and the finished water main are encased in a common casing, the Contractor has the option of installing a 98" x 69" arch or a 96" circular tunnel liner casing.

Tunnel liner plates shall be either corrugated, two flange, with lapped offset end joints or four flange panelled steel plates having a metal thickness of not less than 0.1345" except, in accordance with railroad requirements if four flange panelled plates are installed under the Seaboard Coastline Railroad, the metal thickness shall be increased to 0.1644". After fabrication, both sides of the plates shall be hot dipped galvanized and bituminous coated. Two inch tapped and plugged grouting holes shall be provided as required to insure that the void between the excavation and the outside of tunnel liner plates can be filled with pressure grout.

TUNNEL INSTALLATION:

Access pits at each end of the tunnel shall be sheeted and braced. The dimensions of the tunnel shall be as shown on the plans. All excavation for the entire length of the tunnel shall be done by the Contractor. The periphery of the tunnel shall be trimmed smooth to fit the outside of the steel liner plates as nearly as practical. The liner plates shall be installed immediately after the excavated material has been removed. At no time shall the material be excavated more than 24" ahead of the liner plate installation. The Contractor shall provide all necessary bracing,

bulkheads and/or shields to insure the complete safety of all workmen and traffic. He shall perform the work in such a manner as to not interfere with normal traffic over the work. As the tunnel is installed, the entire void area between the excavation and the outside of the tunnel liner plates shall be completely filled by pressure grouting with a sand-cement grout mixture.

AIR VALVE:

Air valves shall be combination air valves incorporating the features of both the standard air/vacuum valve and the air release valve. One inch air valves shall be Apco Model 143C or Crispin Model C10. Two inch air valve shall be Apco Model 145C or Crispin Model C20.

MANHOLES AND PRECAST MANHOLES:

Manholes shall be constructed of clay brick conforming to the latest ASTM Specification C62, Grade SW, with concrete bottoms and cast iron frames and covers, and shall be constructed in accordance with details shown on the drawings. Brick manholes shall be built with header courses. Wall thickness for manholes shall be 8 inches for depths up to 10 feet and 12 inches for depths over 10 feet. Inside diameters shall be 4' or 5' as shown on the drawings. Manhole shall be laid up with one to three (1:3) cement mortar.

The Contractor may, if he so elects, furnish and install precast reinforced concrete manhole risers and tops in lieu of brick masonry manholes and/or stacks in any or all locations where manholes are called for. Precast manholes for use on this work shall conform to the provisions of the latest ASTM C478 and shall be of a design approved by the Engineers. Tops for precast manholes shall be of the concentric cone type. When riser sections and top have been placed, the Contractor shall completely fill lift holes and interior annular spaces at joints with cement mortar and shall trowel and wipe smooth.

Manhole steps shall be solid steps of standard pattern as specified elsewhere herein. In no event shall makeshift manhole steps consisting of bent reinforcing steel bars be acceptable. Steps shall be firmly secured to precast manhole wall either by being cast into the wall or by having steps extend completely through manhole walls, and being secured by bolting thereto.

Manholes shall be provided with cast iron frames and covers as specified elsewhere. Frames and covers shall be carefully

placed to prevent damaging and shall be set evenly on the manholes and in frames to prevent rocking. Frames shall be embedded on the tops of manholes with mortar.

MANHOLE FRAMES AND COVERS:

All frames and covers shall be cast iron and shall weigh not less than 340 pounds. All frames and covers shall be in accordance with approved shop drawings and shall be similar to castings sketched on the Plans. Cast iron shall conform to Federal Specifications QQ-I-652 and shall be of good quality and such character as shall make the metal of the casting strong, tough, and of even grain. They shall be smooth, free from scale, lumps, blisters, and sand holes and defects of every kind which would make them undesirable for the use for which they are intended. No plugging or filling will be allowed. Castings shall be given one heavy coat of good grade asphaltum paint at the foundry. The covers shall conform to city standards.

MANHOLE STEPS:

Solid cast iron manhole steps of standard pattern, shall be furnished and built into the walls of all manholes where indicated on the drawings. Spacing of steps shall be as indicated on the drawings. Manhole steps shall be similar and equal to Clow-National F3650 or Nennah R-1980-1.

CONCRETE & MORTAR FOR BRICK MANHOLES & PIPE LINE STRUCTURES:

All portland cement shall conform to the latest current ASTM Specifications Designation C-150, Type 1. Fine aggregate shall be natural sand, and coarse aggregate shall be crushed stone, both conforming to the latest current ASTM Specification Designation C-33. Sand conforming to State Road Department Specifications will be acceptable. Water used for concrete shall be clean, and free from acids, alkalis or vegetable, sewage or organic matter, and the total amount used shall not exceed six (6) gallons per sack of cement.

All mortar for brick work shall be composed of one (1) portland cement to three (3) parts sand, conforming with these specifications, and hydrated lime equal to 5% to 10% of the volume of cement.

All concrete shall have a compressive strength of not less than 2,500 lbs. per sq. in. at an age of 28 days.

Reinforcing steel shall conform to the latest ASTM Specification A615, Grade 60 or ASTM Specification A616, Grade 60 or ASTM Specification A617, Grade 60.

CONSTRUCTION WITHIN STATE HIGHWAY, COUNTY ROADS AND CITY STREETS:

All storage of materials, excavation, backfilling, paving removal and replacement, clean up and grassing shall be in strict accordance with the applicable state, county or city regulations. It shall be the Contractor's responsibility to determine the exact requirements of the authority having jurisdiction over the right-of-way and no extra compensation will be allowed the Contractor for meeting such requirements. No highway, road or street shall be closed to traffic without authorization from the proper authority. The Contractor shall provide suitable lights, signs, barricades and flagman to insure the safety of traffic and construction.

CLEARING AND GRUBBING:

The location of all work shall be cleared of all trees, growth, debris, stumps and other objectionable matter before trenching. Special care shall be taken not to damage any adjacent or nearby shrubbery, trees, grass, fences, walks, utility lines, drainage structures, paving or other property. The Contractor shall be responsible for such damage and shall replace all such property damaged with equal new property after completion of the work.

The Contractor shall clear all right-of-way and remove obstructions along the line for a sufficient area to provide adequate work space, including space for stakes, hubs, benchmarks and batterboards. All debris shall be removed and disposed of by the Contractor.

Removal of trees and permanent structures along or in the trench space shall be done by the Contractor, but only as directed by the Engineers. All construction activity shall be limited to the space avialable and shown on the plans unless the Contractor obtains legal rights to use adjacent property from the private owners concerned.

EXCAVATION AND PREPARATION OF TRENCH:

All trench shall be opened in the designated locations and only so far in advance of pipe laying as the Engineers shall permit. Bracing will be required where the nature of the soil requires and where it is necessary for the safety of the workers and the protection of existing paving and other facilities. The trench shall be kept dry at all times, and the drainage from pumps shall be led or piped to natural drainage channels. Pavement shall be removed, where required, to neat lines, and the absolute minimum width removed.

Before opening trench, the Contractor shall examine all available records and explore for the location of all existing subsurface pipe, valves, or other structures, and reference such locations on the surface. In opening trenches, every effort shall be made not to interfere with these structures. Slight deviations, with the Engineers' approval, may be permitted in order to clear such structures. The Contractor shall be entirely responsible for the preservation of all underground or overhead utility lines and structures, such as gas, water, sewer lines, telephone conduit, power lines, etc., and he shall replace, adjust, or repair, without additional compensation, any such lines damaged or interfered with as a result of this construction. All negotiations with the Owners of existing utilities shall be the responsibility of the Contractor.

Trench sides shall be as near vertical as possible. The Contractor shall do all excavation of every description and of whatever substances encountered.

All trenches shall be excavated to the depth and grade as shown on the plans. The use of trenching machinery will not be permitted where their operation will cause damage to trees, buildings, utility lines or existing structures above or below ground, in which case hand methods shall be employed.

The trench shall be graded to have a flat bottom. Bell holes shall be excavated at each joint so that the pipe barrel shall rest for its entire length on sound soil cut true and even. Any faulty material unsuitable for a foundation for the pipe shall be removed and the trench built back to grade with material acceptable to the Engineers.

Trenches shall necessarily vary in width depending upon depth, nature of soil, and pipe diameter, but the width shall be ample

to permit proper laying, jointing and backfilling. The minimum width of unsheeted trench shall be 12" greater than the nominal diameter of the pipe. Where the trench crosses pavement, the width shall be held to the absolute minimum. Where pipe trench parallels paving the width shall be held to the minimum as specified, in order not to damage the paving and should paving slide into the trench, settle, or otherwise be damaged, it shall be replaced by the Contractor at no additional cost to the Owner; however, should the Contractor elect to widen the ditch and replace paving damaged this may be permitted, provided all damaged paving is replaced by the Contractor at no cost to the Owner.

Pipe laid parallel to paving one pipe diameter or more from centerline of pipe to edge of paving will be considered outside of paving and no payment will be made for paving replacement. Pipe laid less than one pipe diameter from centerline of pipe to edge of paving will be considered under paving and payment for paving replacement will be made.

The excavation for manholes valve vaults shall extend to a firm acceptable foundation and leave six inches (6") in the clear between their outer surface and the embankment or timber that may be used to protect the structure.

The Contractor shall furnish, install and maintain such sheeting, bracing, etc. as may be required to support the sides of the excavation and to prevent any movement that might injure or delay the work or damage adjoining structures.

Sheeting will be required where it is necessary for the safety of the workman. Trench width may be increased only by an amount which will allow for the thickness of the sheeting. Sheeting shall remain in place until after completion of pipe laying, and testing and backfilling have progressed to a safe point in the opinion of the Engineers.

No extra compensation will be allowed for the removal of earth that sloughs in the trench, for the refilling of cavities so created, nor for sheeting, bracing, etc. No extra compensation will be allowed for sheeting, bracing, etc., left in place, and the Contractor must obtain prior approval of the Engineers for leaving sheeting and bracing in place.

Any resurfacing or other material removed that is suitable for re-use shall be kept separate from general excavation. Excavation and other material shall always be piled in such a manner that gutters, side ditches, sidewalks, driveways, hydrants,

valve boxes, curb stops, meters, call boxes, sewers, etc., shall not be interfered with. Adequate barricades, construction signs, torches, red lanterns and guards will be required at all times during the progress of the work and until it is safe for traffic to use the streets. Rules, regulations and instructions issued by the City authorities shall be promptly complied with. All excavation shall be placed on one side of the trench unless permission is given by the Engineers to place it on both sides. Excavated material shall be so placed as not to endanger the work. All trees, shrubs, etc., shall be reasonably protected.

Reasonable and satisfactory provisions shall be made by the Contractor for travel on sidewalks, driveways, etc., by the laying of temporary crossings, or wooden bridges as shall be directed by the Engineers.

Where necessary to open trenches across streets or roads being used by traffic, operations shall be done in such a manner as to interfere as little as possible with the movement of traffic. Suitable bridges across trenches shall be provided at intersections.

REMOVING EXISTING PAVEMENT:

All pavement required to be removed for the construction of water mains including all connections and appurtenances shall be cut back at least 8" on each side of the excavation to allow the replaced pavement to bear on undisturbed soil. Before removal, all pavement shall be cut or scored to a sufficient depth to insure that pavement break will be straight and even. Any damage to adjacent pavement shall be replaced by the Contractor at his own expense. All removed pavement shall be removed and disposed of by the Contractor.

HANDLING:

Utmost care shall be exercised in loading and unloading pipe fittings, valves, and accessories, in order to avoid shock, or damage to the material. Lifting shall be by hoist. Fork lifts shall not be permitted. Pipe shall be distributed along or near the trench location and shall be placed in accordance with State Highway Specifications. The Contractor shall be responsible for the safe handling of all materials, and no damaged materials shall be used.

TRENCH STABILIZATION:

In places where the trench bottom is unstable from ground water or other causes, the Contractor may be required to provide crushed stone, gravel, limerock, or other suitable material as a stabilizer for the bottom of the trench as directed by the Resident Inspector. All stabilization material shall conform to Georgia Highway Department Specifications. Should stabilization become necessary, the Contractor will be allowed extra compensation for the actual amounts so placed within the limits prescribed and at the unit price bid.

The use of stabilization material will be allowed only when dewatering the trench by means of pumps and/or otherwise will not stabilize the trench bottom sufficiently for pipe laying to continue. Material wasted on the side and material used for the convenience of the workmen will not be measured for payment.

The limitations as to the depth allowed for payment in no way relieves the Contractor of the responsibility of the line and grade of the pipe line.

In locations where rock is removed from the bottom of the trench below the correct trench grade, the Contractor shall where specifically directed place stabilization material to build the trench bottom back to the proper grade. Where stabilization is placed to replace rock which has been undercut, the maximum depth of stabilization for which payment will be made shall be six inches (6").

ROCK EXCAVATION

All rock encountered shall be removed 6" below the bottom grade of the trench where pipe is being laid, and the trench built back to the correct grade with suitable select material thoroughly tamped into place, unless the Contractor is specifically directed to place stabilization material.

In the event rock excavation is required at the location of structures, the measurement for rock excavation will be limited to the bottom of the footing and to 6" on all sides of the outside of the footing, and no extra will be allowed for bank slope.

When rock is encountered, it shall be stripped of earth and the Resident Inspector notified and given proper time to measure same before blasting. All rock removed which has not been previously measured by the Resident Inspector will not be estimated as rock excavation.

Only natural rock giving a ringing sound when struck with a hammer and, in the opinion of the Engineer, requires drilling and blasting or the use of jackhammers for removal, will be estimated as rock excavation.

Shale or rotten stone or stratified rock that can be loosened by a pick, or by trenching equipment, shall not be construed as rock.

Rock excavation shall be measured by the Resident Inspector and shall be the average actual length times a depth equal to 6" below the grade of the trench and the width shall be considered as 12" freater than the nominal diameter of the pipe being laid in the trench where rock is encountered.

All blasting operations and all handling, storage and use of blasting materials shall be in strict accordance with Federal, state and local ordinances and regulations and shall be approved by the Engineers. All blasting shall be performed under the supervision of an experienced blaster having qualifications and experience acceptable to the Engineer. Exposed structures shall be protected from the effects of blasts and blasts shall be covered with suitable mats. Blasts shall be restricted to the extent that no appreciable shock will be transmitted to existing structures, pipe lines, sewers, cables or other public or private facilities. The Contractor shall be wholly responsible for any and all personal injury or property damage resulting from blasting.

All rock excavation shall be removed and disposed of by the Contractor.

WATER MAIN CONSTRUCTION:

All pipe, fittings, valves, and accessories shall be carefully lowered into the prepared trench piece by piece by suitable means to prevent damage. Dropping or dumping pipe or accessories into trench will not be permitted. The pipe shall be centered in trench and joints made in accordance with the manufacturer's recommendations.

Whenever necessary to deflect pipe from a straight line, either vertical or horizontal, to avoid obstructions, to plumb valve stems, or to form curves, the amount of deflections shall be determined by the Engineers. In no case shall deflection per joint be greater than as recommended by the manufacturer.

The Contractor shall keep a transit and appurtenances on the job to be used for laying out the angles required for making bends and other works of this nature.

No pipe shall be laid in water. The Contractor will be required to operate pumps, if necessary, to remove water from the trench while pipe is being laid and joints are being made. When work is not in progress the ends of the pipe shall be closed to prevent water or other foreign material from entering the pipe. Valves installed on existing mains shall be kept closed until after the line is tested, sterilized and accpeted for service.

Bends, valves, fire hydrants and other points where deemed necessary shall be blocked against undisturbed soil and held to resist movement. This shall be accomplished by methods and means approved by the Engineers. All forms used to form concrete for blocking shall be removed before backfilling.

All lumps, blisters, excess coating, dirt and other objectionable substances shall be removed from the bells and spigots. Bells and spigots shall be wiped clean and dry. Bells shall be centered in the trench and spigots driven home.

Lead joints, where required, shall be thoroughly caulked with pneumatic or hand tools of proper thickness by competent workmen. All yarning or packing material shall be dry and free of oil, tar, or greasy substance, in order to prevent contamination. Strands of yarning material as required to center the spigot in the bell shall be driven home with suitable tools, the entire area of the space being filled with material to within not less than 2 1/2" from the end of the bell. Successive layers of yarning material placed in the joint shall be so placed that strand ends are evenly staggered. After joint runner and "mud" are in place, the joints shall be completely filled with one continuous pouring from one pot of lead. The lead shall be melted to a very liquid condition in an approved furnace and all scum bubbles, trash or deleterious substances shall be removed immediately before pouring. Caulking shall proceed promptly to obtain a neat and absolutely watertight joint. Driving of lead to more than 1/8" beyond face of bell

shall be cause for rejection of the joint. Joints shall be not less than 1/4" thick and 2 1/2" deep.

Mechanical joints and restrained joints shall be made in strict accordance with the pipe manufacturer's instructions. The gaskets and follower rings shall be kept clean and carefully centered in the bell with the bolts and bolt holes always parallel with the centerline of the pipe. The coating and lining of the pipe shall not be damaged. The nuts on all bolts shall be started and tightened evenly around the entire circumference of the pipe. No one nut shall be tightened more than 1/2 turn tighter than the remainder of the nuts of the joint. Bolts shall not be overstressed and shall be tightened just enough to compress the gasket sufficient to prevent leakage. Just prior to assembly, the gasket shall be cleaned of all foreign material and shall be brushed with soapy water just before slipping the gasket over the spigot and into the bell of the pipes. Bolts shall be tightened with torque wrenches with the following torque loads applied:

Bolt Size	Range of Torque Foot - Pounds
5/8"	40 - 60
3/4"	60 - 90

Push-on type joints shall be made in strict accordance with the pipe manufacturer's instructions. All joints shall be completely "belled up" and all spigots shall be "home". The gasket seat in the socket, the gasket and the plain end of the pipe to be entered shall be wiped clean before assembly. After the gasket has been inserted into the gasket recess, a thin film of lubricant shall be applied to the inside surface of the gasket and to the outside surface of the spigot end of the pipe to be jointed. After lubricating, the end of the pipe shall not be allowed to touch the bottom or side of the trench causing dirt to adhere to the joint surface.

BACKFILLING:

As soon as joint has been completed, the bell hole under the hub shall be carefully and completely filled with firm selected material, tamped into place so as to hold the joint securely in place. All trenches shall be carefully backfilled with selected earth immediately behind the pipe laying operation. Backfill shall be placed in layers not to exceed 6" in thickness

and shall be firmly tamped into place with suitable heavy duty power tamping equipment. During the backfilling and tamping operation, care shall be taken not to disturb nor damage the pipe. No rock will be allowed in the backfill within a distance of 6" from the pipe or the ground surface, and rock larger than 6" in the greatest dimension will not be permitted in any part of the trench.

The Contractor shall replace all surface material and shall restore adjacent shrubbery, fences, sod, grass and other surfaces to a condition equal to that before the work began, furnishing all labor and materials incidental thereto.

PAVING REPAIRS AND REPLACEMENT:

All pavement shall be replaced with Type I, Type II, or concrete pavement replacement as indicated and/or detailed on the plans. All paving materials shall be in accordance with Georgia Department of Transportation Specifications.

A straight edge shall be used to assure that the replaced pavement is the same height as the existing. Care shall be taken at all time to obtain a smooth, unnoticeable repair to the pavement.

Should any pavement repairs fail or settle during the life of the Contract, including the maintenance period, the Contractor shall promptly repair or replace such pavement to the satisfaction of the Engineers.

TESTING:

After filling the line with water, a test pump shall be installed at the low point of the section being tested, and after blowing off all air at high points on the line, the pressure shall be increased to 250 p.s.i. at test pump location. The volume of water required by the test pump to maintain this excess pressure, which will represent the leakage, shall not exceed 1/2 GPD per inch diameter per 100' of pipe. Excess pressure and leakage test shall be successfully conducted for not less than 6 consecutive hours.

The Contractor shall furnish all labor, equipment and material necessary to conduct tests, and shall furnish and install all temporary plugs and valves necessary to isolate the test sections. Water for test purposes will be furnished by the Owner.

STERILIZING:

All new water lines shall be thoroughly flushed to remove all foreign material before sterilizing. The Contractor shall furnish all required labor, approved sterilizing agent, and equipment and do all work necessary to sterilize the water mains in accordance with the applicable section of the latest AWWA Specification C601. The Owner will furnish all water for sterilizing.

CLEANING UP AND MAINTENANCE:

All surplus pipe line materials, tools, and temporary structures shall be removed by the Contractor and all rubbish, debris, and excess rock and earth shall be hauled to a dump provided by the Contractor. The site of construction shall be kept and left clean, to the satisfaction of the Engineers.

After the work is accepted as a whole, the Contractor shall maintain and repair as directed the surfaces of the trenches, adjacent curbs, sidewalks, gutters, street paving, shrubbery, fences, sod, spillways, and other surfaces and structures which may have been disturbed during construction, for a period of sixty (60) days thereafter.

All equipment, materials, and labor required for such maintenance and/or repairs shall be furnished by the Contractor and the work shall be done in a manner satisfactory to the Engineers.

ROAD CONSTRUCTION:

As indicated on the drawings, the Contractor shall construct an unpaved road from Chase Street to Barber Street. The road shall be 25' wide from shoulder to shoulder with a 20' wide, 6" thick crusher run base course.
Suitable borrow material is located on the site adjacent to the road. The borrow area shall be excavated in such a manner as to leave the site self-draining.

All rock, roots and other debris shall be removed from fill material. All fill shall be placed in layers not exceeding 6" in depth, loose measurement, and each layer shall be compacted to 95 percent of minimum density determined by the latest ASTM D698.

Upon completion of the work, the shoulder area, all cut and fill slopes and the borrow area shall be grassed.

GRASSING:

If work at the site permits seeding to be done between February 15 and April 15 or between August 15 and November 15, use Fescue Kentucky 31 at a rate of 5 pounds per 1000 sq. ft. (A mixture of Kentucky 31 and other fescues will be considered.) If the site becomes ready for seeding between April 15 and August 15, use Hulled Bermuda at a rate of 3 pounds per 1000 sq. ft. No grassing will be done between November 15 and February 15.

Remove any stones over 1" in size, sticks, roots, or deleterious materials from the site. Plow, disc, harrow and till soil to a depth of 4" to 6".

The Contractor shall have a soil test made to determine what pH adjustments shall be made. If pH of soil is below 6.0, add agricultural limestone at a rate of 50 pounds per 1000 sq. ft. spread uniformly over the entire area. Fertilize with either 6-12-12, 4-12-12 or 5-10-15 at a rate of 30 pounds per 1000 sq. ft. spread uniformly over the entire area. Mix lime and fertilizer into the top 4" of soil using suitable harrows or rotary tillers.

Weather permitting, sow seed within 24 hours after liming and fertilization using mechanical drills, rotary hand seeders or other approved methods. Hand seeding will not be permitted. Seed and fertilizer shall be covered lightly by raking with mechanical tool. Mulch with straw at rate of 2 tons per acre.

Maintenance shall begin immediately after each portion of grass is planted and shall continue for at least six (6) weeks, and shall consist of watering, erosion repair, weeding, mowing, etc. All water required to water grass during the maintenance period will be furnished by the Owner.

At the end of the six (6) weeks maintenance period, the Engineer shall inspect the lawn and if at that time a sufficient coverage of grass is apparent, the Contractor will be relieved of his responsibility for the lawn. Otherwise, he will be required to replant unacceptable areas.

The Contractor shall guarantee vaiability and thrifty growth for a period of one year following acceptance of initial germination. Ninety (90) percent coverage is acceptable if void areas are generally broadcast and do not exceed one square yard in area.

MEASUREMENT AND PAYMENT:

No quantity shall be measured for payment except items listed in the proposal unless the Owner and Engineers have approved "extra work" and have so advised the Contractor in writing.

Any and all other materials, labor, etc., furnished and required shall be considered as incidental to the items to be measured for payment.

Payment will be made at the unit prices bid for all items listed on the Proposal.

Measurement and payment for all water pipe furnished and installed will be based on the laying length of the pipe in linear feet, as measured along the centerline of the complete pipe, including the length of fittings, valves, and specials measured long their centerlines. Branch pipes to fire hydrants will be measured along their centerlines from the centerline of the main to the centerline of the hydrant barrel. Payment for this item will be full compensation for all clearing, grubbing, excavation, dewatering, backfill; for all pipe and other materials, supports, jointing, testing, temporary blocking, sterilizing and for all equipment and all other work necessary to complete the installation as specified including connecting to existing valves and existing water mains where indicated.

Payment will be made for each standard valve furnished and installed at the applicable contract unit price for the respective size valves. This payment will be full compensation for all labor, materials, tools, and equipment required for installation of the valve, cast iron box and rodding. The valve where indicated on the plans.

Payment will be made for each tapping sleeve and valve and shall include furnishing and operating the tapping machine, furnishing and installing the tapping sleeve, tapping valve, and cast iron box.

Payment will be made for each fire hydrant furnished and installed at the contract unit price. The pipe stub from the centerline of the main to the centerline of the hydrant will be paid for as water pipe. The contract unit price will be full compensation for all labor, materials, supports,rodding,porous backfilling, tools and equipment required for installing and testing the hydrants.

Payment for mechanical joint, ductile iron fittings shall be made on the per ton basis using the ASA Specifications A21.10 published weights and shall include all accessories.

Casing and tunnel line shall be paid at a lump sum price for each location listed in the proposal. The lump sum payment will be full compensation for all excavation and/or tunneling and for all materials, tools, labor and equipment necessary to make each installation complete. Separate payment will be made for rock excavation.

Air valves will be paid for at the applicable contract unit price for the respective size valve. Payment will be full compensation for the air valve, piping, gate valve and manhole complete.

Crusher run base from Station 150+00 to Chase Street, if required, will be paid at the contract unit price per ton. Payment will be full compensation for all labor, material and equipment required to haul, place and compact the crusher run base. Crusher run base material required for the road construction from Chase Street to Barber Street will NOT be paid for as a separate item but shall be included in the lump sum price bid for road construction.

Road construction will be paid for at the lump sum price bid. Payment will be full compensation for all grading, hauling, compaction, crusher run base, grassing and shall include all storm drainage pipe.

Pavement replacement will be measured and paid for at the applicable contract unit price for the type pavement replaced. The linear feet of pavement replaced will not be measured as such but the quantity for payment shall be the measured length of pipe installed within the pay limits, of pavement replaced, regardless of width, and such payment shall be full compensation for all labor, materials, tools and equipment necessary to complete the work.

Measurement of concrete for blocking and miscellaneous use shall be made by the Engineers and the quantity shall be figured by the average actual depth, placed within the lines established by the Engineers. Payment will be made at the contract unit price per cubic yard, which will be full compensation for all material, labor, equipment excavation, dewatering, and forms required to complete the item in accordance with the specifications.

Trench stabilization shall be measured as the actual length, times the actual depth, directed to be placed, times the minimum trench width hereinbefore specified and paid for at the cubic yard price bid. Stone delivery tickets shall in no way enter into the determination of the quantity allowed for payment.

Rock excavation will be paid for at a unit price of $25.00 per cubic yard as stated in the Proposal and shall include placing and compacting suitable material to a depth of 6" below the barrel of the pipe. If specifically directed, trench stabilization will be paid for as a separate item. Payment for rock excavation will be allowed only when natural, solid rock encountered in any one location has a greater volume than one (1) cubic yard. No rock allowance will be made for concrete, shale, chert or other similar material. Rock excavation will be measured by the Engineers and the quantity shall be figured by average actual width times average actual depth, except that for payment purposes, the width, the depth shall be limited as follows:

> The maximum width of rock excavation will be considered as being twelve (12) inches greater than the nominal diameter of the pipe; the maximum depth will be considered as being six (6) inches below the bottom of the pipe barrel.

The contract unit price for rock excavation will be full compensation for all labor, equipment, tools and material to excavate, remove, haul and dispose of the excavated work.

SET TAB STOPS AT ARROWS

Certificate of Insurance

ACORD

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY

COOK, VIRDEN & PHARR, INC.
P. O. BOX 20138
ATLANTA, GEORGIA 30325

NAME AND ADDRESS OF INSURED

W. L. CAREY, GENERAL CONTRACTOR, INC.
P. O. BOX 441
ROYSTON, GEORGIA 30662

COMPANIES AFFORDING COVERAGES

COMPANY LETTER A — THE HOME INSURANCE COMPANY
COMPANY LETTER B — PACIFIC INSURANCE COMPANY
COMPANY LETTER C
COMPANY LETTER D
COMPANY LETTER E

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)	EACH OCCURRENCE	AGGREGATE
A	**GENERAL LIABILITY** [X] COMPREHENSIVE FORM [X] PREMISES—OPERATIONS [X] EXPLOSION AND COLLAPSE HAZARD [X] UNDERGROUND HAZARD [X] PRODUCTS/COMPLETED OPERATIONS HAZARD [X] CONTRACTUAL INSURANCE [X] BROAD FORM PROPERTY DAMAGE [X] INDEPENDENT CONTRACTORS [X] PERSONAL INJURY	GA-9966688	8/24/81	BODILY INJURY	$ 300	$ 300
				PROPERTY DAMAGE	$ 250	$ 250
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	$
				PERSONAL INJURY		$ 300
A	**AUTOMOBILE LIABILITY** [X] COMPREHENSIVE FORM [X] OWNED [X] HIRED [X] NON-OWNED	BA-6153469	8/24/81	BODILY INJURY (EACH PERSON)	$ 250	
				BODILY INJURY (EACH ACCIDENT)	$ 500	
				PROPERTY DAMAGE	$ 100	
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	
B	**EXCESS LIABILITY** [X] UMBRELLA FORM [ ] OTHER THAN UMBRELLA FORM	PI-000227	8/24/81	BODILY INJURY AND PROPERTY DAMAGE COMBINED	$3,000	$ 3,000
A	**WORKERS' COMPENSATION and EMPLOYERS' LIABILITY**	PWC-9747484	8/24/81	STATUTORY		
					$ 100	(EACH ACCIDENT)
	OTHER					

"RE: INDEMNIFICATION AGREEMENT: CONTRACT LIABILITY IS INCLUDED. SEE INDEMNIFICATION AGREEMENT CLAUSE ON THE REVERSE SIDE OF CERTIFICATE."

LOCATION: "ADDITIONS TO THE WATER SYSTEM, CONTRACT NO. I, JOB NO. 800023
BLASTING COVERAGE IS INCLUDED TO THE EXTENT TO WHICH SUCH RISK IS PRESENT.
"RE: CHANGE OR CANCELLATION: POLICIES CERTIFIED WILL NOT BE CHANGED OR CANCELLED WITHOUT TEN (10) DAYS PRIOR NOTICE TO THE OWNER AND THE ENGINEER, AS EVIDENCED BY RETURN RECEIPTS OF REGISTERED OR CERTIFIED LETTERS.

XXXX

HOLD HARMLESS AGREEMENT AS SPECIFIED UNDER 34A:

34. "CONTRACTOR'S HOLD HARMLESS AGREEMENT - INSURANCE:

A. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FROM THE TIME OF SIGNING THE CONTRACT, OR FROM THE TIME OF THE BEGINNING OF THE FIRST WORK, WHICHEVER SHALL BE THE EARLIER, FOR ALL INJURY OR DAMAGE OF ANY KIND RESULTING FROM THIS WORK, TO PERSONS OR PROPERTY. THE CONTRACTOR SHALL EXONERATE, INDEMNIFY AND SAVE HARMLESS THE OWNER AND THE ENGINEER FROM AND AGAINST ALL CLAIMS OR ACTIONS, AND ALL EXPENSES INCIDENTAL TO THE DEFENSE OF ANY SUCH CLAIMS, LITIGATION AND ACTIONS, BASED UPON OR ARISING OUT OF DAMAGE OR INJURY (INCLUDING DEATH) TO PERSONS OR PROPERTY CAUSED BY OR SUSTAINED IN CONNECTION WITH THE PERFORMANCE OF THIS CONTRACT OR BY CONDITIONS CREATED THEREBY OR ARISING OUT OF OR ANY WAY CONNECTED WITH WORK PERFORMED UNDER THIS CONTRACT AND SHALL ASSUME AND PAY FOR, WITHOUT COST TO THE OWNER OR THE ENGINEER, THE DEFENSE OF ANY AND ALL CLAIMS, LITIGATIONS AND ACTIONS, SUFFERED THROUGH ANY ACT OR OMISSION OF THE CONTRACTOR OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED UNDER THE SUPERVISION OF ANY OF THEM."

SOIL & MATERIAL ENGINEERS INC. ENGINEERING-TESTING-INSPECTION

1937 Briarwood Ct., N.E., Atlanta, Georgia 30329, 404/325-1250

October 28, 1980

Robert and Company Associates
Architects, Engineers, Planners
96 Poplar Street, N.W.
Atlanta, Georgia 30303

ATTENTION: Mr. J. H. Harper,

Subject: Report of Subsurface Investigation
Proposed Additions to Water System
Athens, Georgia
S&ME Job No. AS-710

Gentlemen:

Soil and Material Engineers, Inc. is pleased to present this report of our subsurface investigation for the subject project. The work was done in general accordance with our proposal of services, No. 80-173, dated October 14, 1980. This report will present a description of the method of investigation, site and subsurface conditions, and our evaluations of the data.

METHOD OF INVESTIGATION

Nine borings were advanced by hollow stem augers and standard split-spoon samples were taken at regular intervals. Some borings were offset several times when shallow refusal was obtained in an effort to determine whether refusal was due to boulders, discontinuous rock, or continuous hard rock. Details of the drilling procedures are included in the Appendix as are the Soil Boring Records which provide graphical presentations of the standard penetration tests and descriptions of the conditions encountered at each location. Elevations on the Soil Boring Records are referenced to interpolated ground surface elevations obtained from the site plan. These elevations should therefore be considered approximate. Borings were located in most instances by taping off stakes placed by the surveyor along the center line of the water pipe.

SITE AND SUBSURFACE CONDITIONS

The area studied for this investigation consisted of six sites along the route of proposed new raw water pipes (24 and 30 inch) in Athens, Georgia. The route of these pipes is essentially parallel to that of the U.S. Highway 29 By-pass and covers approximately 3.5 miles. These six sites are at locations where the pipes cross streets and/or rail lines and large

tunnels will be constructed. Figure 1 shows the locations of these sites along the proposed route of the pipe.

Each boring is discussed briefly in the following paragraphs. The reader is referred to Figures 1 through 6 for boring locations and subsurface profiles as well as the Soil Boring Records in the Appendix for details of the conditions at each site.

Borings B-1, B-2 and B-3 are shown on Figure 2. These borings were placed on each side of and in the median of the U.S. 29 By-pass. Boring B-1, at the base of the south shoulder, found hard and very stiff residual sandy silt soils extending to 12 feet. Boring B-2 was placed in the median and encountered about 4 feet of possible fill consisting mainly of sandy silty clay. Partially weathered rock or boulder fill was reached at approximately 4 feet and extended to about 8 feet where refusal was obtained. This boring was offset three times to the west and one time to the east of the initial boring; each offset was about 8 feet from the original location. In each case, refusal was encountered at a depth of 8 to 9 feet. Boring B-3 was placed on the north shoulder of the By-pass. Five feet of very stiff fine sandy clayey silt representing residual soil or possible fill was encountered in this boring above partially weathered rock or boulder fill. The partially weathered rock or boulder fill extended to 7.5 feet where refusal was encountered. This boring was offset approximately 10 feet to the west and refusal was encountered at 8 feet.

Boring B-4 was placed on the west shoulder of Barber Street as shown on Figure 3. This boring found 13.5 feet of fill consisting of very stiff sandy silts underlain by silty clay. Alluvial materials described as clayey sandy silts were encountered below the fill materials and extended to at least 15 feet where the boring was terminated.

Figure 4 shows the locations of boring B-5 and B-5A on the west and east shoulders of Chase Street, respectively. Boring B-5 refused at 2.0 feet and so boring B-5A was placed on the opposite side of the street. This boring encountered about 6 inches of fill over residual soils consisting of stiff and very stiff sandy silts which extended to at least 10 feet, where the boring was terminated.

Boring B-6, next to the Seaboard Coast Line Railroad, is shown on Figure 5. This boring refused at 8.6 feet after penetrating very stiff residual sandy silty soil.

Boring B-7 was placed in the median of Jefferson Road where it crosses over the rail lines and the U.S. 29 By-pass, as shown in Figure 6. Seven feet of fill, consisting of very firm stilty sand was found to overlie very stiff to hard silty clays which represent residual soils or possible fill. The boring was terminated at 17 feet.

Figure 7 shows the location of boring B-8 on the east side of Tallassee Road. Two feet of possible fill materials were found to overlie residual soils composed of very hard sandy silts. Refusal was encountered at 7.2 feet and the boring was offset 3 feet. Refusal was obtained at 7.5 feet in the offset boring.

The partially weathered rock mentioned in the preceding paragraphs is defined as materials exhibiting penetration resistances in excess of 50 blows per 6 inches. This material is described as a transition material between residual soil and the hard parent rock.

Refusal to our augering procedures can be the result of encountering boulders, discontinuous rock lenses or hard continuous rock. It is usually not possible to define the nature of refusal materials without utilizing diamond bit coring. At locations where several offset borings encountered similar refusal levels, hard rock is likely, although a dense boulder fill may also produce consistent refusal levels.

No groundwater was encountered at the time of boring. However, the alluvial materials near the termination of boring B-4 were moist.

EVALUATIONS

This investigation was made to determine the presence (or absence) of rock at proposed tunnel locations for the new raw water lines to be added to the City of Athens water system.

At two tunnel locations (Barber Street, represented by boring B-4 and Jefferson Street, represented by boring B-7) no rock was encountered above the tunnel invert level and therefore no problems with excavation are anticipated.

At the locations where the tunnel will pass under the Seaboard Coast Line Railroad and Tallassee Road (boring B-6 and B-8, respectively), refusal to our boring procedures was encountered at depths of 3.5 to 8.0 feet above the tunnel invert level. In addition to this, rock was noted in the south side of the railroad embankment, corresponding approximately to the south end of the tunnel where it would pass under the railroad. Difficult excavation due to rock is anticipated in these two locations. Boring B-8 was offset 3 feet and again encountered refusal at about 7.5 feet.

At the Chase Street tunnel location, refusal was encountered (in B-5) at 6 feet above the level of the tunnel invert on the west side of the street, while the boring placed on the east side (B-5A) went to below the tunnel invert level. It is believed that the shallow refusal on the west side was probably due to the presence of a boulder; hence, excavation for the tunnel should not be difficult.

The tunnel location at the U.S. 29 By-pass was investigated by three borings (B-1, B-2 and B-3). Boring B-1 on the south side of the by-pass was extended to below the tunnel invert level without encountering

rock. Borings B-2 and B-3 (in the median and on the north side of the by-pass, respectively) encountered refusal at 17 to 23 feet above the tunnel invert level. Boring B-2 was offset 4 times and boring B-3 was offset once, with refusal occurring at similar depths as the initial borings. Based on these findings, considerable difficult excavation is anticipated at this location.

* * * * * * *

We have appreciated the opportunity to work with you on this investigation and are available to answer any questions you may have regarding this report.

Very truly yours,

SOIL AND MATERIAL ENGINEERS, INC.

Blanche M. Wallace
Blanche M. Wallace
Geologist

Stanley A. Schwartz
Stanley A. Schwartz, P.E.
Chief Engineer

BMW/SAS/jcr
enclosures

APPENDIX

800023-01

A1-8

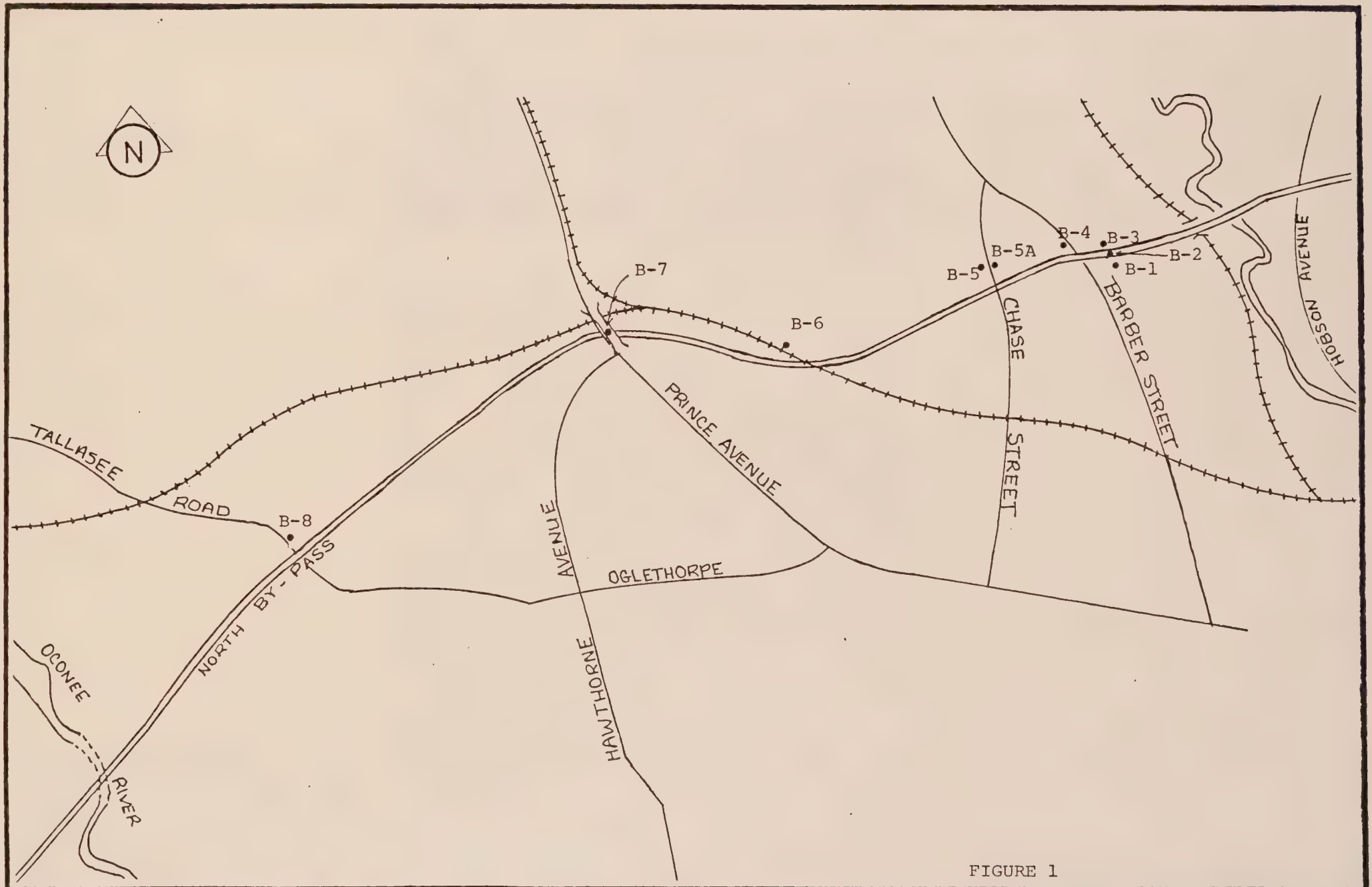
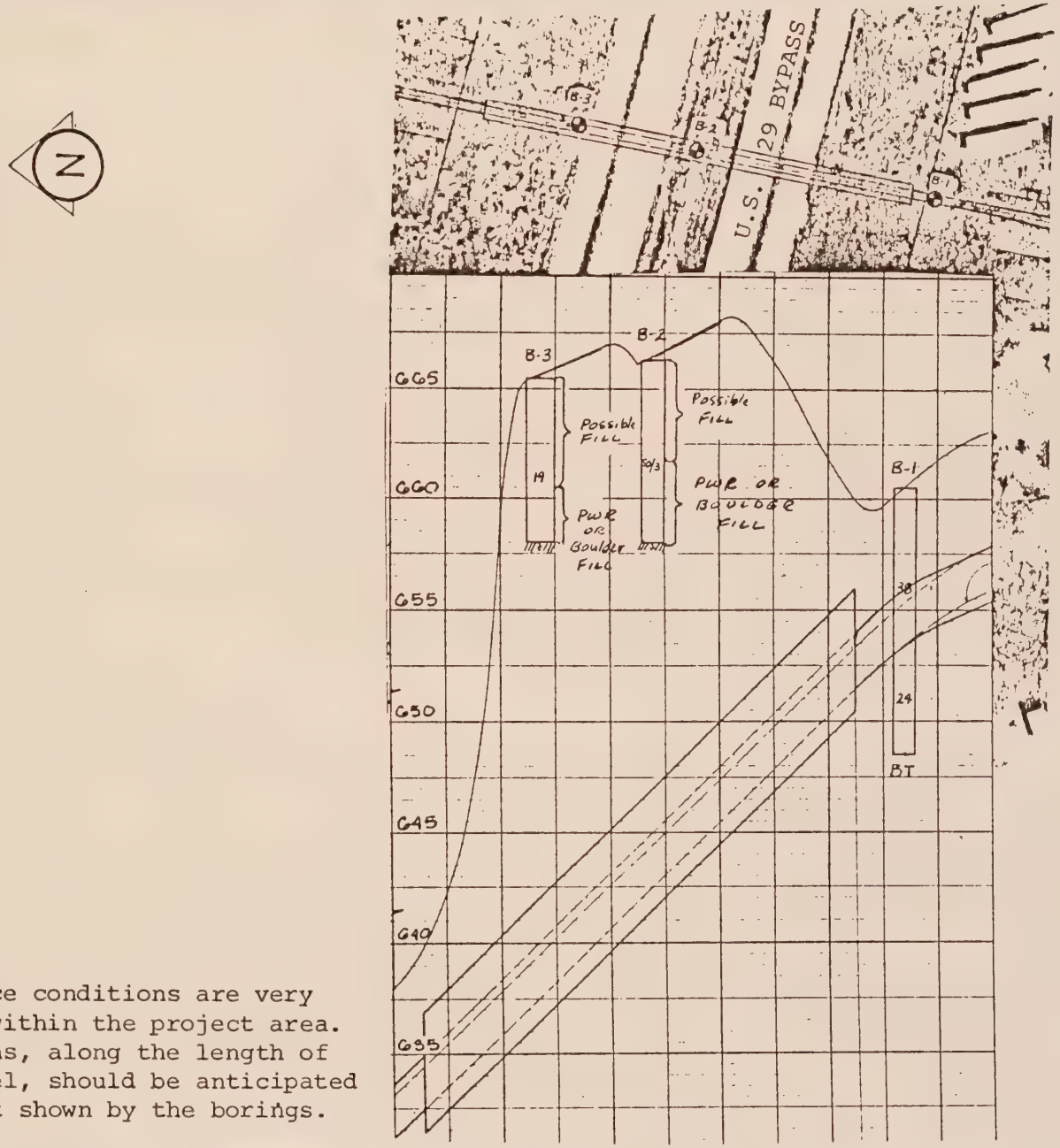


FIGURE 1

SCALE: 1" = 2000' ● : BORING LOCATION	**SOIL & MATERIAL ENGINEERS INC.** Atlanta, Georgia	SITE & BORING LOCATION PLAN WATER SYSTEM ADDITION ATHENS, GEORGIA S&ME JOB NO. AS-710

800023-01

A1-9



Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

FIGURE 2

SCALE: 1" = 80' H
0.6"≈ 5' V
: BORING LOCATION
BT: BORING TERMINATED
: REFUSAL

PWR: PARTIALLY WEATHERED ROCK

SOIL & MATERIAL ENGINEERS INC.

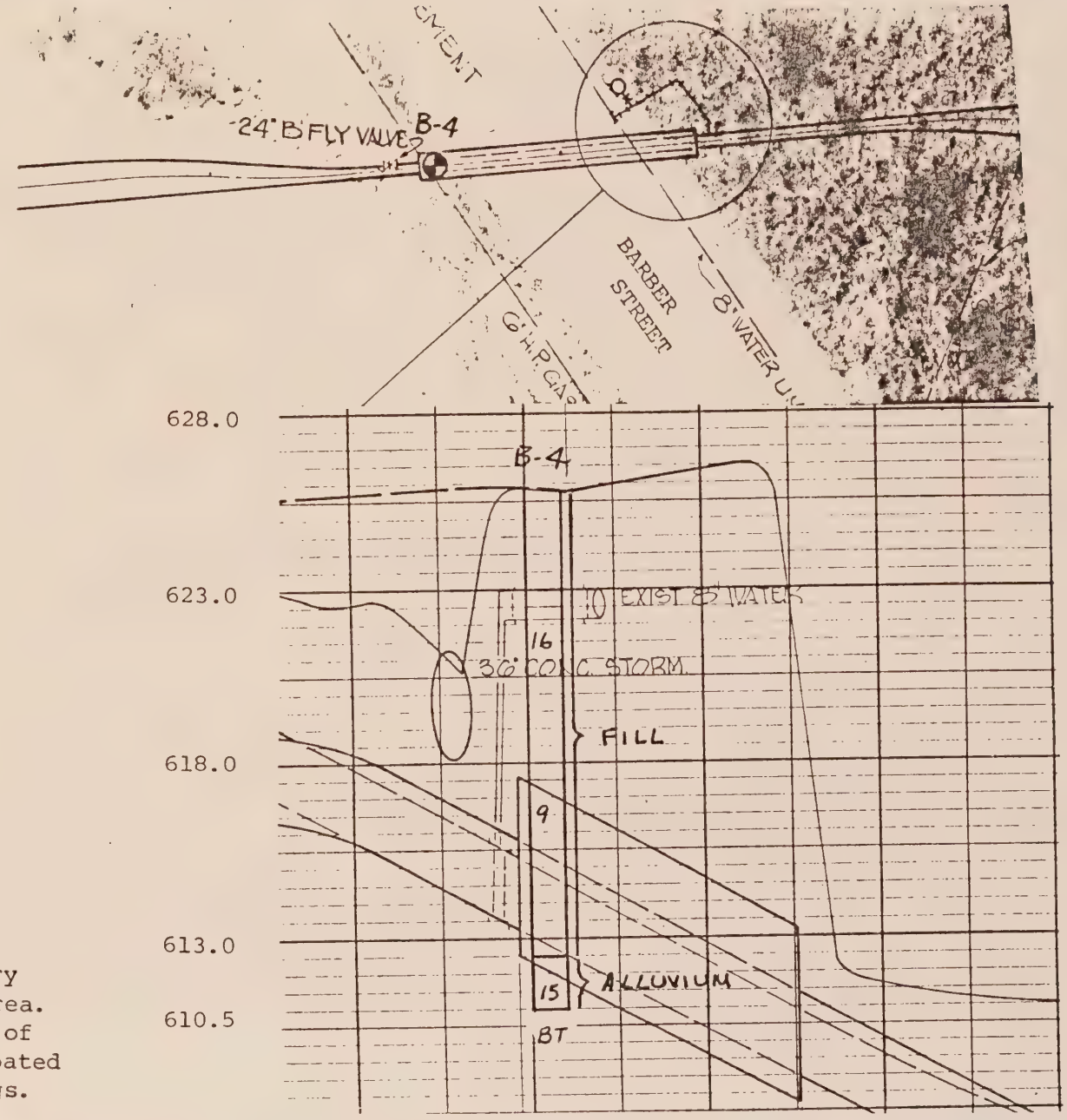
Atlanta, Georgia

PLAN, PROFILE & BORING LOCATION
WATER SYSTEM ADDITION
U.S. 29 BY-PASS
ATHENS, GEORGIA

S&ME JOB NO. AS-710

800023-01

A1-10



Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

FIGURE 3

SCALE: 1" = 50' H
1" = 5' V
⊕ :BORING LOCATION
BT: BORING TERMINATED
16: PENETRATION RESISTANCE

SOIL & MATERIAL ENGINEERS INC.

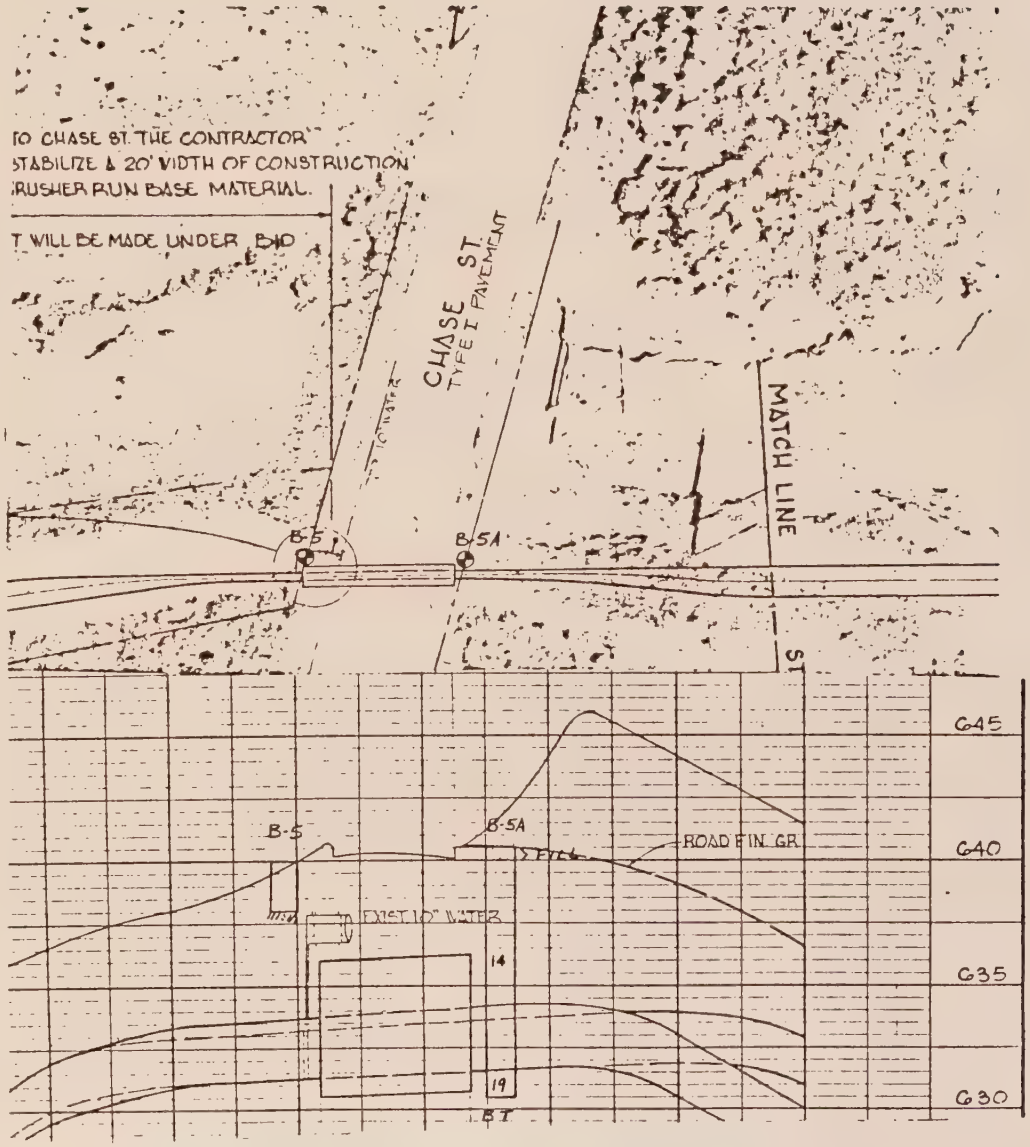
Atlanta, Georgia

PLAN, PROFILE & BORING LOCATION
WATER SYSTEM ADDITION
BARBER STREET
ATHENS, GEORGIA

S&ME JOB NO. AS-710

800023-01

A1-11



Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

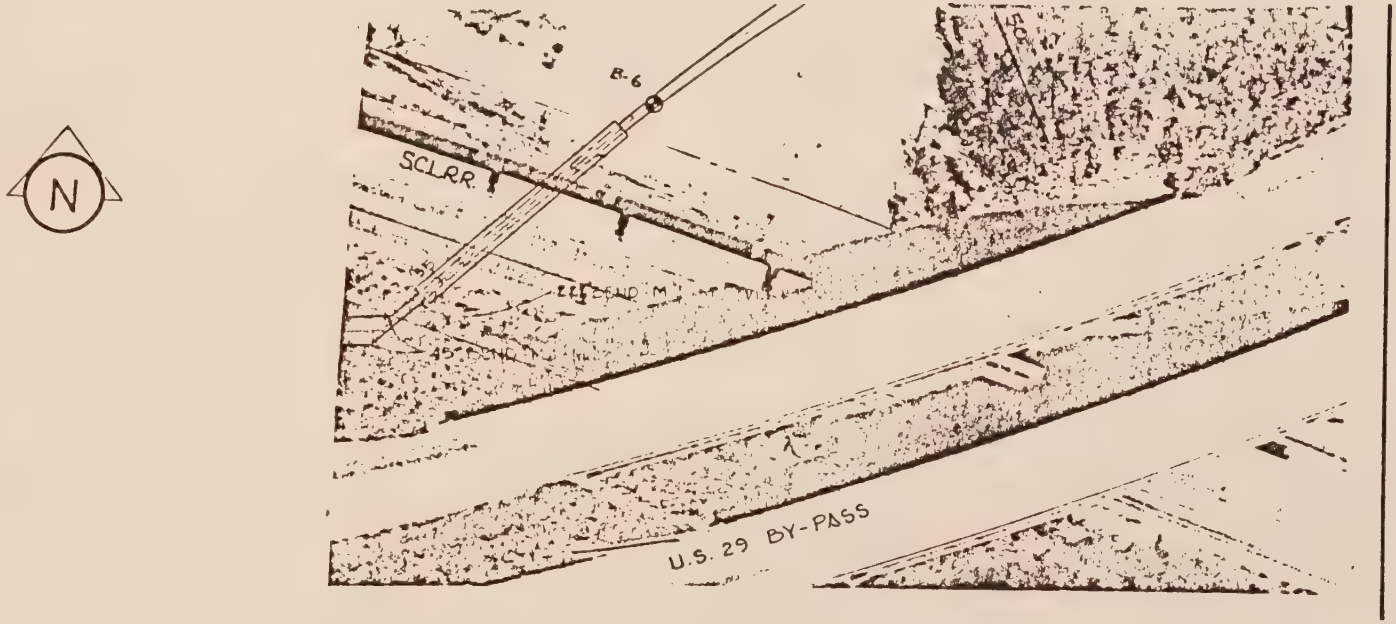
FIGURE 4

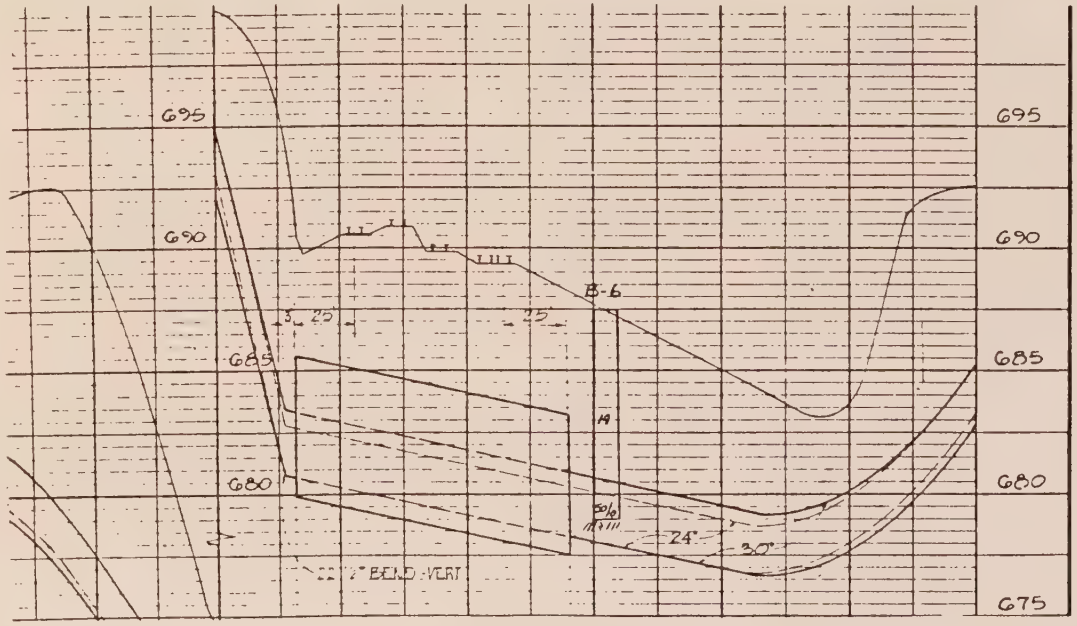
SCALE: 1" ≈ 80' H 0.6" ≈ 5' V ⊕ : BORING LOCATION BT: BORING TERMINATED REF : REFUSAL	**SOIL & MATERIAL ENGINEERS INC.** Atlanta, Georgia	PLAN, PROFILE & BORING LOCATION WATER SYSTEM ADDITION CHASE STREET & U.S. 29 BY-PASS ATHENS, GEORGIA S&ME JOB NO. AS-710

14: PENETRATION RESISTANCE

800023-01

A1-12





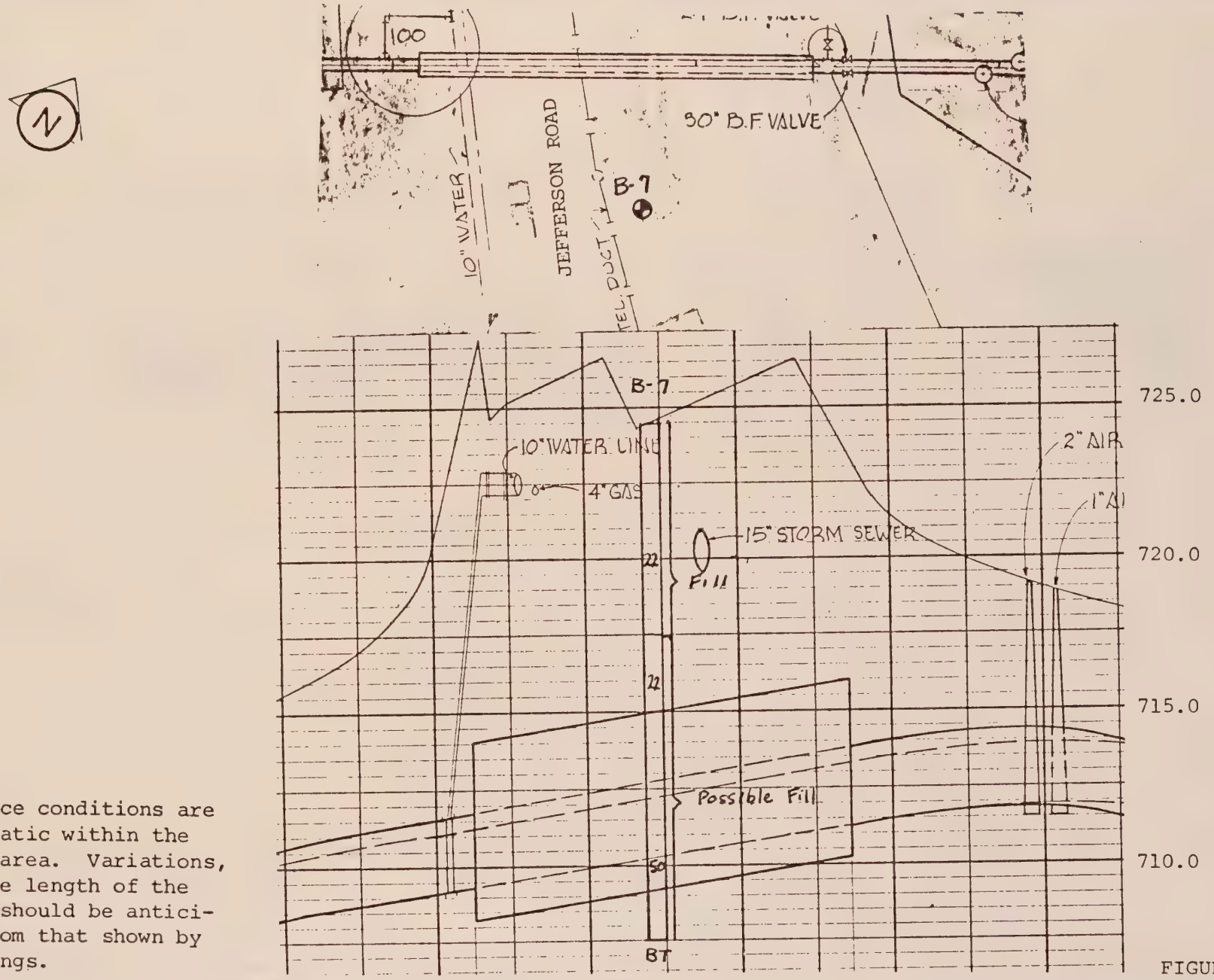
Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

FIGURE 5

SCALE: 1" ≈ 80' H 0.6" ≈ 5' V ⊕: BORING LOCATION : REFUSAL 19: PENETRATION RESISTANCE	**SOIL & MATERIAL ENGINEERS INC.** Atlanta, Georgia	PLAN, PROFILE & BORING LOCATION WATER SYSTEM ADDITION SEABOARD COAST LINE RAILROAD & U.S. 29 BY-PASS ATHENS, GEORGIA S&ME JOB NO. AS-710

800023-01

A1-13



Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

FIGURE 6

SCALE: 1" = 50' H	
1" = 5' V	
◕ : BORING LOCATION	
BT: BORING TERMINATED	
22: PENETRATION RESISTANCE	

SOIL & MATERIAL ENGINEERS INC.

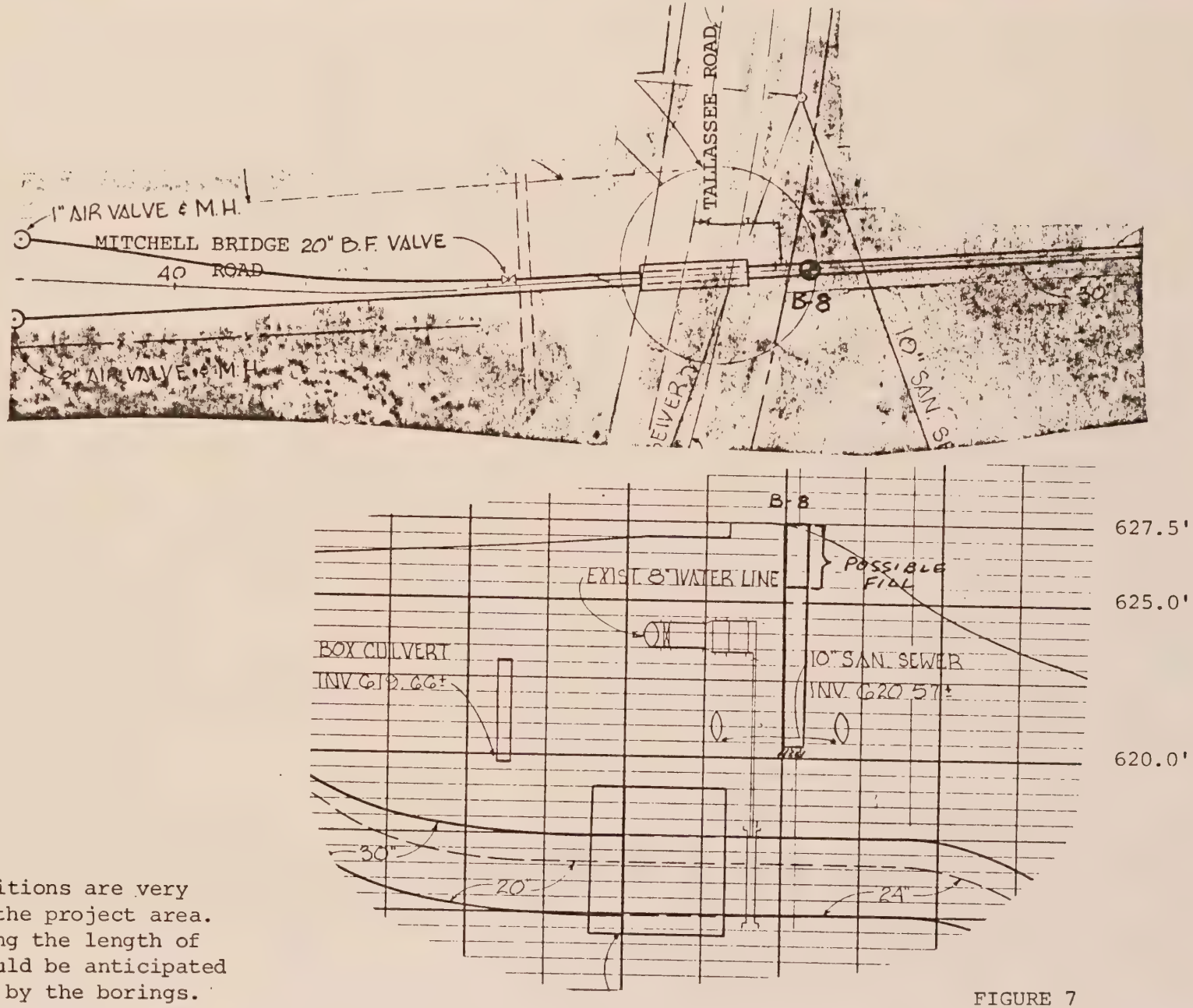
Atlanta, Georgia

PLAN, PROFILE & BORING LOCATION
WATER SYSTEM ADDITION
JEFFERSON ROAD & U.S. 29 BY-PASS
ATHENS, GEORGIA

S&ME JOB NO. AS-710

800023-01

A1-14



Subsurface conditions are very erratic within the project area. Variations, along the length of the tunnel, should be anticipated from that shown by the borings.

FIGURE 7

SCALE: 1" = 50' H 1" = 5' V : BORING LOCATION : REFUSAL	**SOIL & MATERIAL ENGINEERS INC.** Atlanta, Georgia	PLAN, PROFILE & BORING LOCATION WATER SYSTEM ADDITION MITCHELL BRIDGE & TALLASEE ROAD ATHENS, GEORGIA S&ME JOB NO. AS-710

KEY TO CLASSIFICATIONS

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	NO. OF BLOWS, N	RELATIVE DENSITY
SANDS	0 - 4	VERY LOOSE
	5 - 10	LOOSE
	11 - 20	FIRM
	21 - 30	VERY FIRM
	31 - 50	DENSE
	OVER 50	VERY DENSE

		CONSISTENCY
SILTS AND CLAYS	0 - 2	VERY SOFT
	3 - 4	SOFT
	5 - 8	FIRM
	9 - 15	STIFF
	16 - 30	VERY STIFF
	31 - 50	HARD
	OVER 50	VERY HARD

SOIL TEST BORING PROCEDURES

Borings were advanced by a rotary hollow stem auger process. At the desired depth in all borings, the hole was cleaned out and the sampling tools inserted through the auger stems. Samples of the subsurface materials were obtained at 2.5 foot intervals in the initial 10 feet, and at 5 foot intervals thereafter, using a split tube sampler. Split tube sampling operations were performed in accordance with ASTM Designation D-1586. The sampler was first seated 6 inches to penetrate any loose cutting, and then driven an additional foot with blows of a 140 pound hammer falling 30 inches. The number of hammer blows required to drive the sampler the final foot was recorded and is designated the standard penetration resistance. When properly evaluated, it may be used an an index to the soil strength, density and ability to support foundations.

Representative portions of the split tube samples were placed in glass jars and transported to our laboratory where they were examined by the writer to verify the field classifications.

A record of the sampling operations and the descriptions of soils encountered in each boring are shown on the following Soil Boring Records.

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. (5 10 20 30 40 60 80)
	*	660.5	
	RESIDUUM: Hard and very stiff red-brown very micaceous medium to fine sandy SILT		
5		655.5	38
10		650.5	24
	BORING TERMINATED @ 12.0'		
15	No groundwater encountered at time of boring	645.5	
	* GRASS & TOPSOIL - 4 inches		
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

WATER TABLE — 24 HR.

UNDISTURBED SAMPLE

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-1

DATE DRILLED 10/20/80

JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. (5 10 20 30 40 60 80)
	POSSIBLE FILL: Stiff red-brown medium to fine sandy SILTY CLAY	666.5	
5	PARTIALLY WEATHERED ROCK OR BOULDER FILL: No sample recovered - Soft seam at 6.0' to 7.5'	661.5	50/3"
10	REFUSAL @ 8.2' No groundwater encountered at time of boring	656.5	
15	NOTE: Boring offset 8 to 9 feet 4 times with refusal at 8.0', 9.0', 9.0' and 8.0'		
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

WATER TABLE — 24 HR.

UNDISTURBED SAMPLE

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-2

DATE DRILLED 10/21/80

JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. (5 10 20 30 40 60 80)
	POSSIBLE FILL: Very stiff red-brown micaceous fine sandy CLAYEY SILT	665.5	
5	PARTIALLY WEATHERED ROCK OR BOULDER FILL: No sample recovered	660.5	• 19
10	REFUSAL @ 7.5'	655.5	
	No groundwater encountered at time of boring		
15	NOTE: Boring offset 1 time with refusal @ 8.0'		
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

WATER TABLE — 24 HR.

UNDISTURBED SAMPLE

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-3

DATE DRILLED 10/21/80

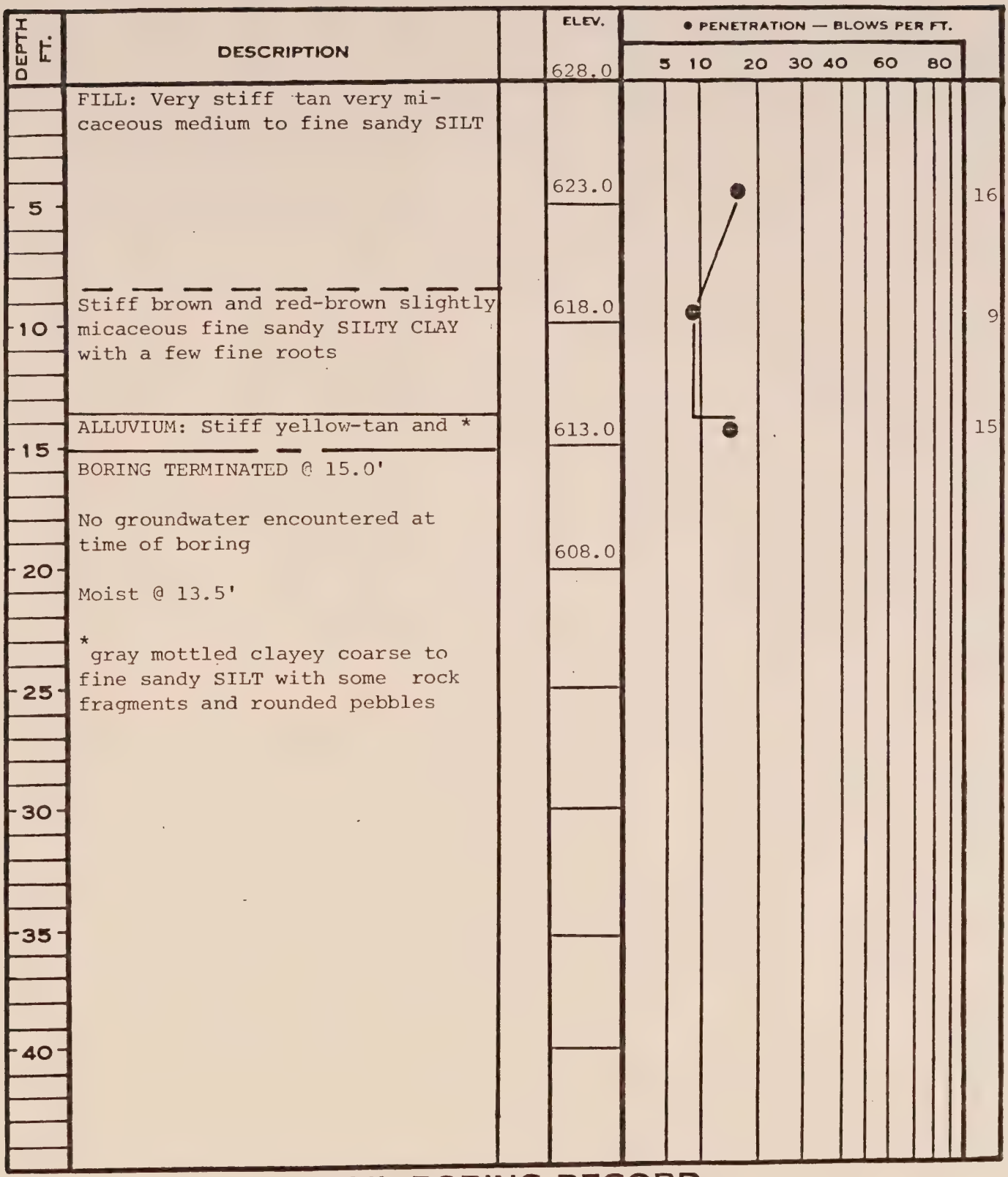
JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG



SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

WATER TABLE — 24 HR.

UNDISTURBED SAMPLE

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-4

DATE DRILLED 10/20/80

JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. 5 10 20 30 40 60 80
		640.0	
	Believed to be fill with boulders No sample recovered - New boring *		
	REFUSAL @ 2.0'	635.0	
5	*made at B-5A location		
10			
15			
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

UNDISTURBED SAMPLE

WATER TABLE — 24 HR.

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-5

DATE DRILLED 10/20/80

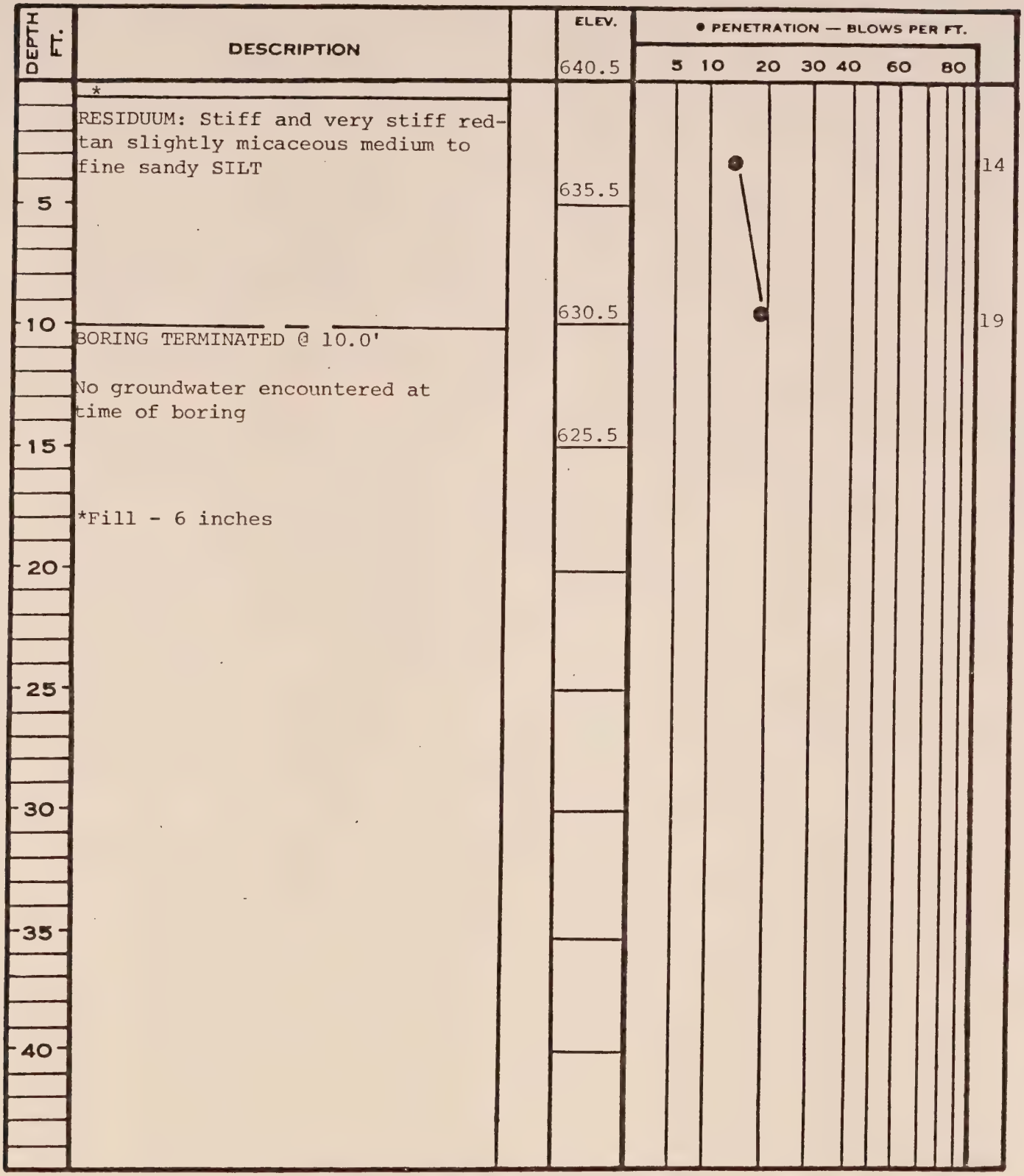
JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG



SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

▭ UNDISTURBED SAMPLE

▽ WATER TABLE — 24 HR.

▽ WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-5A

DATE DRILLED 10/20/80

JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. (5 10 20 30 40 60 80)
		687.5	
5	RESIDUUM: Very stiff red-tan very micaceous medium to fine sandy SILT	682.5	19
10	REFUSAL @ 8.5'	677.5	50/0"
	No groundwater encountered at time of boring		
15			
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

▬ UNDISTURBED SAMPLE

WATER TABLE — 24 HR.

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-6

DATE DRILLED 10/20/80

JOB NO. AS-710

PAGE 1 OF 1

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. (5 10 20 30 40 60 80)
		724.5	
5	FILL: Very firm brown slightly micaceous slightly clayey silty coarse to fine SAND	719.5	22
10	POSSIBLE FILL: Very stiff to hard red-brown slightly micaceous fine sandy SILTY CLAY with small rock fragments	714.5	22
15		709.5	50
	BORING TERMINATED @ 17.0'		
20	No groundwater encountered at time of boring	704.5	
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

UNDISTURBED SAMPLE

WATER TABLE — 24 HR.

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-7

DATE DRILLED 10/21/80

JOB NO. AS-710

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800023-01

A1-24

SOIL & MATERIAL ENGINEERS, INC.

ATLANTA • ALBANY

RALEIGH • GREENSBORO • WILMINGTON • TRI-CITIES • SPARTANBURG

DEPTH FT.	DESCRIPTION	ELEV.	• PENETRATION — BLOWS PER FT. 5 10 20 30 40 60 80
		627.5	
	POSSIBLE FILL: No sample recovered		
	RESIDUUM: Very hard brown micaceous medium to fine sandy SILT (No sample recovered)	622.5	
5			
	REFUSAL @ 7.2		
	No groundwater encountered at time of boring	617.5	
10			
	NOTE: Boring offset 3' Augered 7.5' to refusal		
15			
20			
25			
30			
35			
40			

SOIL BORING RECORD

◀ LOSS OF DRILLING WATER

WATER TABLE — 24 HR.

UNDISTURBED SAMPLE

WATER TABLE — 1 HR.

BORING AND SAMPLING MEETS ASTM D-1586

PENETRATION IS THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30 IN. REQUIRED TO DRIVE 1.4 IN. I. D. SAMPLER 1 FT.

BORING NO. B-8

DATE DRILLED 10-20/80

JOB NO. AS-710

PAGE 1 OF 1

LEGEND

- EXISTING SEWERS
- PROPOSED SEWERS
- SANITARY SEWER DISTRICT BOUNDARY
- SANITARY SEWER SUB-DISTRICT BOUNDARY
- PROPOSED P. STA. AND FORCE MAIN

—NOTE—

ALL EXISTING SEWERS 8" OR SMALLER, UNLESS OTHERWISE SHOWN.

CITY OF ATHENS, GEORGIA
SEWERAGE SYSTEM IMPROVEMENTS

GENERAL PLAN

TO ACCOMPANY WIEDEMAN AND SINGLETON REPORT DATED AUGUST 22, 1958

SCALE, 1" = 800' DATE AUG. 1958	WIEDEMAN AND SINGLETON ENGINEERS ATLANTA GEORGIA	SHEET 1 OF 2

B

A

OCONEE RIVER

CLARKE COUNTY

OCONEE COUNTY

PROPOSED PLANT SITE 'A'

PROPOSED PLANT SITE 'B'

OUTFALL SEWER

CITY OF ATHENS, GEORGIA
SEWERAGE SYSTEM IMPROVEMENTS

GENERAL PLAN

TO ACCOMPANY WIEDEMAN AND SINGLETON REPORT DATED AUGUST 22, 1958

SCALE 1" = 800' DATE AUG. 1958	WIEDEMAN AND SINGLETON ENGINEERS ATLANTA GEORGIA	SHEET 2 of 2

TABULATION OF BIDS

CONTRACTOR	McDONNELL CONTRACTORS, INC. LAKE VILLA, ILL.		JOHN E. CERCO, INC. MT. CLEMENS, MICH.		PRESTON CARROLL CONST. CO. INC. CLIFTON, TENN.		C.F.W. CONSTRUCTION CO. INC. FAYETTEVILLE, TENN.	
BIDDER'S LICENSE								
CONTRACTOR'S LICENSE								
BID BOND/ CERTIFIED CHECK	10% B.B.		10% B.B.		10% B.B.		10% B.B.	

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
			TOTAL - DIVISION ONE, ITEM NOS 1 TO 36, INCL. USING LOWEST COST MATERIAL		[illegible]				3,401,021.50		3,210,426.25				3,603,763.50
			TOTAL - DIVISION TWO, ITEM NOS. 1 TO 27, INCL. USING LOWEST COST MATERIAL		2,287,540.50				2,533,302.00		2,313,984.85				2,713,905.00
			TOTAL - DIVISION ONE & TWO, USING LOWEST COST MATERIAL		5,400,000.00				5,934,323.50		5,024,413.10				6,317,668.50
			DEDUCTION:		-0-				432,492.50		-0-				-0-
			CONTRACTOR	CASH CONST. CO. OF ROME, INC. ROME, GA.		ARTHUR PEW CONST. CO. INC. [illegible], GA.		TEEET CONSTRUCTION CO. INC. GREENEVILLE, S.C.							
			BID BOND	10% B.B.		10% B.B.									
			TOTAL - DIVISION ONE, ITEM NOS 1 TO 36, INCL. USING LOWEST COST MATERIAL		2,869,811.00		-0-				-0-				
			TOTAL - DIVISION TWO, ITEM NOS. 1 TO 27, INCL. USING LOWEST COST MATERIAL		-0-		2,003,284.00*				2,061,505.80				
			TOTAL - DIVISION ONE & TWO, USING LOWEST COST MATERIAL												
			DEDUCTION:		-0-		-0-				-0-				

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED.

V. P. LUSTER

* - DENOTES CORRECTED FIGURE

TABULATION OF BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT NO. C150951

BIDS RECEIVED 2:00 P.M. LOCAL TIME, AUGUST 11, 1977

SHEET 8 OF 8

TABULATION OF BIDS

CONTRACTOR	W. L. CAREY, GEN. CONTR., INC. LOUISTON, GA.	JOHN D. STEPHENS, INC. LILBURN, GA.	TOMMY L. GRIFFIN PLBG. & HTG. CO. MACON, GA.	SERVICE CONSTRUCTION CO., INC. NASHVILLE, TENN. REST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.	
BIDDER'S LICENSE	1	2	3		
CONTRACTOR'S LICENSE					
BID BOND/ CERTIFIED CHECK	10% B.B.	10% B.B.	10% B.B.	10% B.B.	

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
			DIVISION ONE												
			SEWERS & APPURTENANCES												
1.			36" PIPE SEWER	CLAY PIPE		CONC. PIPE		CLAY PIPE		CONC. PIPE		CLAY PIPE		CONC. PIPE	
(a)	50	L.F.	8'-10' CUT			38.00	1,900.00	58.50	2,925.00	42.50	2,125.00			60.00	3,000.00
(b)	100	L.F.	10'-12' CUT			39.00	3,900.00	60.50	6,050.00	44.50	4,450.00			62.00	6,200.00
2.			24" PIPE SEWER												
(a)	300	L.F.	0'-4' CUT			21.00	6,300.00	31.00	9,300.00	27.00	8,100.00			26.00	7,800.00
(b)	1,100	L.F.	4'-6' CUT			21.00	23,100.00	32.00	35,200.00	28.00	30,800.00			27.00	29,700.00
(c)	950	L.F.	6'-8' CUT			21.50	20,425.00	33.00	31,350.00	29.00	27,550.00			28.00	26,600.00
(d)	100	L.F.	8'-10' CUT			22.50	2,250.00	34.00	3,400.00	30.00	3,000.00			30.00	3,000.00
(e)	850	L.F.	10'-12' CUT			23.00	19,550.00	36.00	30,600.00	32.00	27,200.00			32.00	27,200.00
(f)	3,400	L.F.	12'-14' CUT			24.00	81,600.00	38.00	129,200.00	35.00	119,000.00			36.00	122,400.00
(g)	2,500	L.F.	14'-16' CUT			26.00	65,000.00	41.00	102,500.00	38.00	95,000.00			38.00	95,000.00
(h)	1,150	L.F.	16'-18' CUT			32.00	36,800.00	45.00	51,750.00	42.00	48,300.00			40.00	46,000.00
(i)	150	L.F.	18'-20' CUT			39.00	5,850.00	49.00	7,350.00	46.00	6,900.00			46.00	6,900.00
(j)	150	L.F.	20'-22' CUT			44.00	6,600.00	53.00	7,950.00	52.50	7,875.00			48.00	7,200.00
3.			21" SEWER PIPE												
(a)	1,800	L.F.	4'-6' CUT			18.00	32,400.00	28.50	51,300.00	25.60	46,080.00			24.00	43,200.00
(b)	1,650	L.F.	6'-8' CUT			18.50	30,525.00	29.50	48,675.00	26.60	43,890.00			25.00	41,250.00
(c)	1,200	L.F.	8'-10' CUT			19.50	23,400.00	30.50	36,600.00	27.60	33,120.00			27.00	32,400.00
(d)	350	L.F.	10'-12' CUT			20.50	7,175.00	32.50	11,375.00	30.50	10,675.00			29.00	10,150.00
(e)	400	L.F.	12'-14' CUT			22.00	8,800.00	34.50	13,800.00	32.50	13,000.00			33.00	13,200.00
(f)	150	L.F.	14'-16' CUT			24.50	3,675.00	37.50	5,625.00	35.50	5,325.00			35.00	5,250.00
(g)	200	L.F.	16'-18' CUT			27.00	5,400.00	41.50	8,300.00	39.50	7,900.00			37.00	7,400.00
(h)	100	L.F.	18'-20' CUT			37.00	3,700.00	45.50	4,550.00	43.50	4,350.00			43.00	4,300.00
(i)	50	L.F.	20'-22' CUT	NO BID		47.00	2,350.00	49.50	2,475.00	49.75	2,487.50	NO BID		45.00	2,250.00
(j)	50	L.F.	22'-24' CUT			57.00	2,850.00	53.50	2,675.00	53.75	2,687.50			50.00	2,500.00
(k)	100	L.F.	24'-26' CUT			67.00	6,700.00	57.50	5,750.00	57.75	5,775.00			56.00	5,600.00
4.			18" PIPE SEWER												
(a)	800	L.F.	0'-4' CUT			15.50	12,400.00	22.50	18,000.00	21.75	17,400.00			21.00	16,800.00
(b)	10,000	L.F.	4'-6' CUT			16.00	160,000.00	23.50	235,000.00	22.75	227,500.00			22.00	220,000.00
(c)	12,000	L.F.	6'-8' CUT			16.50	198,000.00	24.50	294,000.00	23.75	285,000.00			23.00	276,000.00
(d)	2,700	L.F.	8'-10' CUT			17.50	50,750.00	25.50	73,950.00	24.75	71,775.00			25.00	72,500.00
(e)	1,100	L.F.	10'-12' CUT			18.50	20,350.00	27.50	30,250.00	27.60	30,360.00			27.00	29,700.00
(f)	400	L.F.	12'-14' CUT			19.50	7,800.00	29.50	11,800.00	29.60	11,840.00			29.00	11,600.00
(g)	300	L.F.	14'-16' CUT			25.00	6,600.00	31.50	9,450.00	31.50	9,450.00			33.00	9,900.00
(h)	100	L.F.	16'-18' CUT			27.00	2,700.00	35.50	3,550.00	35.50	3,550.00			35.00	3,500.00
(i)	50	L.F.	18'-20' CUT			37.00	1,850.00	39.50	1,975.00	41.50	2,075.00			41.00	2,050.00
(j)	50	L.F.	20'-22' CUT			52.00	2,600.00	43.50	2,175.00	45.50	2,275.00			43.00	2,150.00
(k)	50	L.F.	22'-24' CUT			62.00	3,100.00	47.50	2,375.00	49.50	2,475.00			48.00	2,400.00
(l)	50	L.F.	24'-26' CUT			77.00	3,850.00	51.50	2,575.00	53.50	2,675.00			54.00	2,700.00
5.			15" PIPE SEWER												
(a)	100	L.F.	0'-4' CUT			14.00	1,400.00	20.00	2,000.00	19.50	1,950.00			20.00	2,000
(b)	6,000	L.F.	4'-6' CUT			14.00	84,000.00	20.70	124,200.00	20.50	123,000.00			21.00	126,000
(c)	2,350	L.F.	6'-8' CUT			14.50	34,075.00	21.70	50,995.00	21.50	50,525.00			22.00	51,700.00
(d)	2,300	L.F.	8'-10' CUT			15.50	35,650.00	22.70	52,210.00	22.50	51,750.00			24.00	55,200.00
(e)	1,800	L.F.	10'-12' CUT			16.50	29,700.00	24.70	44,460.00	25.00	45,000.00			27.00	48,600.00
SUB-TOTAL, ITEM NOS. 1 TO 5, INCL. USING LOWEST COST MATERIAL							1,055,075.00				1,494,230.00		1,439,950.00		1,482,100.00
6.			1½" PIPE SEWER	CLAY PIPE		PVC PIPE		CLAY PIPE		PVC PIPE		CLAY PIPE		PVC PIPE	
(a)	800	L.F.	0'-4' CUT	11.00	8,800.00			16.75	13,400.00	17.00	13,600.00			16.00	12,800.00
(b)	4,550	L.F.	4'-6' CUT	11.00	50,050.00			17.75	80,762.50	18.00	81,900.00			16.00	72,800.00
(c)	2,150	L.F.	6'-8' CUT	12.00	25,800.00			18.75	40,312.50	19.00	40,850.00			16.75	36,012.50
(d)	1,000	L.F.	8'-10' CUT	13.00	13,000.00			19.75	19,750.00	20.00	20,000.00			18.00	18,000.00
(e)	1,450	L.F.	10'-12' CUT	14.00	20,300.00			21.70	31,465.00	22.00	31,900.00			20.00	29,000.00
(f)	1,000	L.F.	12'-14' CUT	15.00	15,000.00	NO BID		23.70	23,700.00	24.00	24,000.00	NO BID		22.00	22,000.00
(g)	550	L.F.	14'-16' CUT	18.00	9,900.00			25.70	14,135.00	26.00	14,300.00			25.00	13,750.00
(h)	100	L.F.	16'-18' CUT	22.00	2,200.00			29.70	2,970.00	30.00	3,000.00			30.00	3,000.00
(i)	50	L.F.	18'-20' CUT	27.00	1,350.00			33.70	1,685.00	34.00	1,700.00			35.00	1,700.00
7.			10" PIPE SEWER												
(a)	50	L.F.	0'-4' CUT	10.75	537.50			13.60	680.00	13.75	687.50			14.00	700.00

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED.

V. P. LUSTER

*-DENOTES CORRECTED FIGURE

TABULATION OF BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT No. C130351

BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977

TABULATION OF BIDS

CONTRACTOR	[illegible] GEN. CONTR., INC. HOUSTON, GA.	JOHN D. STEPHENS, INC. COLUMBUS, GA.	TOMMY L. GRIFFIN PIPELINE CONT. CO. MACON, GA.	REEVES CONSTRUCTION CO., INC. NASHVILLE, TENN. EAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.
BIDDER'S LICENSE				
CONTRACTOR'S LICENSE				
BID BOND / CERTIFIED CHECK	10% B.B.	10% B.B.	10% B.B.	10% B.B.

ITEM	QUANTITY	UNIT	DESCRIPTION	[illegible] UNIT PRICE	[illegible] TOTAL AMOUNT	[illegible] UNIT PRICE	[illegible] TOTAL AMOUNT	JOHN D. STEPHENS, INC. UNIT PRICE	JOHN D. STEPHENS, INC. TOTAL AMOUNT	JOHN D. STEPHENS, INC. UNIT PRICE	JOHN D. STEPHENS, INC. TOTAL AMOUNT	TOMMY L. GRIFFIN PIPELINE CONT. CO. UNIT PRICE	TOMMY L. GRIFFIN PIPELINE CONT. CO. TOTAL AMOUNT	TOMMY L. GRIFFIN PIPELINE CONT. CO. UNIT PRICE	TOMMY L. GRIFFIN PIPELINE CONT. CO. TOTAL AMOUNT	REEVES CONSTRUCTION CO., INC. UNIT PRICE	REEVES CONSTRUCTION CO., INC. TOTAL AMOUNT	EAST CONSTRUCTION CO., INC. UNIT PRICE	EAST CONSTRUCTION CO., INC. TOTAL AMOUNT
(b)	2,700	L.F.	4'-6' CUT	11.75	31,725.00			14.00	37,800.00	14.75	39,825.00			14.00	37,800.00			13.00	35,100.00
(c)	2,300	L.F.	6'-8' CUT	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]			14.75	33,925.00			14.00	32,200.00
(d)	700	L.F.	8'-10' CUT	13.75	12,375.00			16.60	14,940.00	16.75	15,075.00			16.00	14,400.00			16.00	14,400.00
(e)	500	L.F.	10'-12' CUT	14.75	7,375.00			18.60	9,300.00	18.75	9,375.00			18.00	9,000.00			18.00	9,000.00
(f)	200	L.F.	12'-14' CUT	15.75	3,150.00			20.60	4,120.00	20.75	4,150.00			20.00	4,000.00			20.00	4,000.00
(g)	200	L.F.	14'-16' CUT	17.75	3,550.00			22.60	4,520.00	22.75	4,550.00			23.00	4,600.00			22.00	4,400.00
(h)	50	L.F.	16'-18' CUT	22.00	1,100.00			26.60	1,330.00	26.75	1,337.50			26.00	1,300.00			28.00	1,400.00
(i)	50	L.F.	18'-20' CUT	24.00	1,200.00			30.60	1,530.00	30.75	1,537.50			35.00	1,750.00			32.00	1,600.00
(j)	50	L.F.	20'-22' CUT	37.00	1,850.00			34.60	1,730.00	34.75	1,737.50			40.00	2,000.00			34.00	1,700.00
(k)	50	L.F.	22'-24' CUT	52.00	2,600.00			38.60	1,930.00	38.75	1,937.50			50.00	2,500.00			38.00	1,900.00
8.			8" PIPE SEWER			NO BID													
(a)	700	L.F.	0'-4' CUT	9.00	6,300.00			10.60	7,420.00	10.75	7,525.00	NO BID		9.85	6,895.00	NO BID		10.00	7,000.00
(b)	1,400	L.F.	4'-6' CUT	9.50	13,300.00			11.60	16,240.00	11.75	16,450.00			9.85	13,790.00			11.00	15,400.00
(c)	2,600	L.F.	6'-8' CUT	10.00	26,000.00			12.60	32,760.00	12.75	33,150.00			11.00	28,600.00			12.00	31,200.00
(d)	1,100	L.F.	8'-10' CUT	11.00	12,100.00			13.60	14,960.00	13.75	15,125.00			12.00	13,200.00			14.00	15,400.00
(e)	350	L.F.	10'-12' CUT	12.00	4,200.00			15.60	5,460.00	15.75	5,512.50			14.00	4,900.00			16.00	5,600.00
(f)	100	L.F.	12'-14' CUT	14.00	1,400.00			17.60	1,760.00	17.75	1,775.00			16.00	1,600.00			18.00	1,800.00
(g)	50	L.F.	14'-16' CUT	16.00	800.00			[illegible]	950.00	19.65	982.50			19.00	950.00			24.00	1,200.00
(h)	50	L.F.	16'-18' CUT	18.00	900.00			23.60	1,180.00	23.65	1,182.50			23.00	1,150.00			26.00	1,300.00
(i)	50	L.F.	18'-20' CUT	24.00	1,200.00			27.60	1,380.00	27.65	1,382.50			30.00	1,500.00			30.00	1,500.00
SUB-TOTAL, ITEM NOS. 6 TO 8 INCL. USING LOWEST COST MATERIALS					316,112.50 ✓				436,420.00 ✓						405,475.50 ✓				423,850.00
9.			24" DUCTILE IRON PIPE																
(a)	50	L.F.	INSTALLED IN CASING			37.00	1,850.00			38.50	1,925.00			47.65	2,382.50			50.00	2,500.00
(b)	108	L.F.	0'-4' CUT ON PIERS			37.00	3,996.00			36.50	3,942.00			43.65	4,714.20			50.00	5,400.00
(c)	10	L.F.	4'-6' CUT			37.00	370.00			37.50	375.00			44.65	446.50			51.00	510.00
(d)	10	L.F.	6'-8' CUT			37.00	370.00			38.50	385.00			46.65	466.50			52.00	520.00
(e)	10	L.F.	8'-10' CUT			38.00	380.00			37.50	375.00			48.15	481.50			54.00	540.00
(f)	10	L.F.	10'-12' CUT			39.00	390.00			41.50	415.00			50.15	501.50			56.00	560.00
(g)	70	L.F.	12'-14' CUT			42.00	2,940.00			43.50	3,045.00			54.15	*3,790.50			58.00	4,060.00
(h)	20	L.F.	14'-16' CUT			47.00	940.00			45.50	910.00			59.15	1,183.00			60.00	1,200.00
10.			20" DUCTILE IRON PIPE																
(a)	160	L.F.	0'-4' CUT ON PIERS			32.00	5,120.00			31.80	5,088.00			37.55	6,008.00			46.00	7,360.00
(b)	10	L.F.	4'-6' CUT			33.00	330.00			32.80	328.00			38.55	385.50			47.00	470.00
(c)	21	L.F.	6'-8' CUT			34.00	714.00			33.80	709.80			40.55	851.55			49.00	1,029.00
(d)	10	L.F.	8'-10' CUT			36.00	360.00			34.80	348.00			42.55	425.50			50.00	500.00
11.			18" DUCTILE IRON PIPE																
(a)	240	L.F.	0'-4' CUT ON PIERS			32.00	7,680.00			28.60	6,864.00			35.21	8,450.40			44.00	10,560.00
(b)	155	L.F.	4'-6' CUT			33.00	5,115.00			29.60	4,588.00			35.21	5,457.55			45.00	6,975.00
(c)	53	L.F.	6'-8' CUT			34.00	1,802.00			30.60	1,621.80			36.21	1,919.13			47.00	2,491.00
12.			16" DUCTILE IRON PIPE																
(a)	320	L.F.	0'-4' CUT ON PIERS			22.00	7,040.00			26.50	8,480.00			31.83	10,185.60			40.00	12,800.00
(b)	72	L.F.	4'-6' CUT			23.00	1,656.00			27.50	1,980.00			31.83	2,291.76			42.00	3,024.00
(c)	33	L.F.	6'-8' CUT			24.00	792.00			28.50	940.50			32.83	1,083.39			44.00	1,452.00
(d)	214	L.F.	8'-10' CUT			25.00	*5,350.00			29.50	6,313.00			34.83	7,453.62			46.00	9,844.00
(e)	170	L.F.	10'-12' CUT			26.00	4,420.00			31.50	5,355.00			36.83	6,261.10			48.00	8,160.00
(f)	20	L.F.	12'-14' CUT			27.00	540.00			33.50	670.00			40.83	816.60			52.00	1,040.00
13.			12" CAST OR DUCTILE IRON PIPE																
(a)	248		0'-4' CUT OR ON PIERS			18.00	4,464.00			21.50	5,332.00			23.75	5,890.00			36.00	8,928.00
(b)	89		4'-6' CUT			19.00	1,691.00			22.50	2,002.50			23.75	2,113.75			38.00	3,382.00
(c)	5		6'-8' CUT			21.00	105.00			23.50	117.50			24.75	123.75			40.00	200.00
14.			10" CAST OR DUCTILE IRON PIPE																
(a)	50	L.F.	INSTALLED IN CASING			16.50	825.00			17.50	875.00			23.00	1,150.00			32.00	1,600.00
(b)	73	L.F.	0'-4' CUT OR ON PIERS			18.00	1,314.00			18.50	1,350.50			17.60	1,284.80			33.00	2,409.00
(c)	29	L.F.	4'-6' CUT			19.00	551.00			19.50	565.50			19.60	568.40			34.00	986.00
(d)	6	L.F.	6'-8' CUT			20.00	120.00			20.50	123.00			20.60	123.60			35.00	210.00
15.			8" CAST OR DUCTILE IRON PIPE																
(a)	68	L.F.	0'-4' CUT OR ON PIERS			14.00	952.00			14.00	952.00			18.00	1,224.00			30.00	2,040.00
(b)	9	L.F.	4'-6' CUT			15.00	135.00			15.00	135.00			18.00	162.00			31.00	279.00
(c)	8	L.F.	6'-8' CUT			16.00	128.00			16.00	128.00			19.00	152.00			32.00	256.00
(d)	5	L.F.	8'-10' CUT			17.00	85.00			17.00	85.00			20.00	100.00			34.00	170.00

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED.

V.P. Luster
V.P. LUSTER

*-DENOTES CORRECTED \ FIGURE

TABULATION OF BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA
WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT NO. C130351
BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977

TABULATION OF BIDS

CONTRACTOR	W. L. CALEY, GEN. CONTR'G. ROYSTON, GA.	JOHN D. STEPHENS, INC. LAFAYETTE, GA.	TOMMY L. GRIFFIN PLBG. & HTG. CO. MACON, GA.	SERVICE CONSTRUCTION CO., INC. NASHVILLE, TENN. EAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.
BIDDER'S LICENSE				
CONTRACTOR'S LICENSE				
BID BOND / CERTIFIED CHECK	10% B.B.	10% B.B.	10% B.B.	10% B.B.

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
16.			CONCRETE COLLARS FOR JOINTING SEWER PIPE TO IRON PIPE														
(a)	3	EA.	24" PIPE			250.00	1,500.00			125.00	750.00			175.00	1,050.00	250.00	1,500.00
(b)	18	EA.	18" PIPE			250.00	4,500.00			100.00	1,300.00			150.00	2,700.00	225.00	4,050.00
(c)	4	EA.	15" PIPE			250.00	1,000.00			85.00	340.00			125.00	500.00	175.00	700.00
(d)	12	EA.	12" PIPE			200.00	2,400.00			75.00	900.00			100.00	1,200.00	150.00	1,800.00
(e)	4	EA.	10" PIPE			200.00	800.00			75.00	300.00			90.00	360.00	125.00	500.00
(f)	8	EA.	8" PIPE			200.00	1,600.00			50.00	400.00			75.00	600.00	100.00	800.00
SUB-TOTAL, ITEM NOS. 9 TO 16, INCL.							74,325.00				70,534.10				85,004.20		110,805.00
17.			6'-11" DIA. MANHOLES														
(a)	1	EA.	6' - 8' DEEP			1,000.00	1,000.00			975.00	975.00			1,000.00	1,000.00	1,400.00	1,400.00
(b)	2	EA.	12' - 14' DEEP			1,400.00	2,800.00			1,175.00	2,350.00			1,600.00	3,200.00	1,500.00	3,000.00
18.			5'-0" DIA. MANHOLES														
(a)	1	EA.	8' - 10' DEEP			800.00	800.00			875.00	875.00			900.00	900.00	1,200.00	1,200.00
(b)	2	EA.	14' - 16' DEEP			1,280.00	2,560.00			1,100.00	2,200.00			1,380.00	2,760.00	1,400.00	2,800.00
(c)	2	EA.	16' - 18' DEEP			1,440.00	2,880.00			1,175.00	2,350.00			1,680.00	3,360.00	1,600.00	3,200.00
19.			4'-0" DIA. MANHOLES														
(a)	2	EA.	0' - 4' DEEP			200.00	400.00			400.00	800.00			300.00	600.00	375.00	750.00
(b)	31	EA.	4' - 6' DEEP			300.00	9,300.00			575.00	17,825.00			350.00	10,850.00	455.00	14,105.00
(c)	111	EA.	6' - 8' DEEP			400.00	*47,600.00			650.00	77,350.00			425.00	50,575.00	535.00	63,665.00
(d)	74	EA.	8' - 10' DEEP			500.00	29,000.00			725.00	42,050.00			525.00	30,450.00	615.00	35,670.00
(e)	37	EA.	10' - 12' DEEP			600.00	22,200.00			800.00	29,600.00			625.00	23,125.00	695.00	25,715.00
(f)	21	EA.	12' - 14' DEEP			700.00	14,700.00			875.00	18,375.00			745.00	15,645.00	775.00	16,275.00
(g)	19	EA.	14' - 16' DEEP			800.00	15,200.00			950.00	18,050.00			865.00	16,435.00	885.00	16,815.00
(h)	5	EA.	16' - 18' DEEP			900.00	4,500.00			1,025.00	5,125.00			975.00	4,875.00	935.00	4,675.00
(i)	5	EA.	18' - 20' DEEP			1,000.00	5,000.00			1,100.00	5,500.00			1,075.00	5,475.00	1,015.00	5,075.00
(j)	3	EA.	20' - 22' DEEP			1,100.00	3,300.00			1,175.00	3,525.00			1,295.00	3,885.00	1,095.00	3,285.00
(k)	1	EA.	22' - 24' DEEP			1,200.00	1,200.00			1,250.00	1,250.00			1,495.00	1,495.00	1,175.00	1,175.00
(l)	1	EA.	24' - 26' DEEP			1,300.00	1,300.00			1,325.00	1,325.00			1,875.00	1,875.00	1,255.00	1,255.00
SUB-TOTAL, ITEM NOS. 17 TO 19, INCL.							*163,740.00				229,525.00				176,525.00		200,660.00
20.			DROP CONN. TO M.H. FITTINGS, FOUNDATION & ENCASEMENT. MIN. DIA. "A"														
(a)	1	EA.	21" x 18"			650.00	650.00			750.00	750.00			800.00	800.00	200.00	200.00
(b)	2	EA.	15" x 12"			550.00	1,100.00			600.00	1,200.00			600.00	1,200.00	125.00	250.00
(c)	1	EA.	10" x 8"			450.00	450.00			500.00	500.00			300.00	300.00	90.00	90.00
(d)	4	EA.	8" x 8"			450.00	1,800.00			400.00	1,600.00			200.00	800.00	80.00	320.00
21.			RISER & ENCASEMENT IN EXCESS OF DIM. "A"														
(a)	4	V.F.	18" DROP			100.00	400.00			250.00	1,000.00			100.00	400.00	40.00	160.00
(b)	9	V.F.	12" DROP			100.00	900.00			200.00	1,800.00			65.00	585.00	30.00	270.00
(c)	30	V.F.	8" DROP			75.00	2,250.00			150.00	4,500.00			50.00	1,500.00	20.00	600.00
22.			CONN. TO EXISTING MANHOLE														
(a)	2	EA.				300.00	600.00			1,000.00	2,000.00			250.00	500.00	1,000.00	2,000.00
23.			CONN. TO EXISTING SEWER														
(a)	6	EA.	8" CONNECTION			300.00	1,800.00			600.00	3,600.00			200.00	1,200.00	200.00	1,200.00
24.			MANHOLE FRAMES & COVERS (IN PLACE)														
(a)	17	EA.	460# STANDARD			140.00	2,380.00			220.50	3,748.50			135.00	2,295.00	105.00	1,785.00
(b)	4	EA.	460# WATERTIGHT			150.00	600.00			241.50	966.00			160.00	640.00	135.00	540.00
(c)	173	EA.	350# STANDARD			120.00	20,760.00			198.00	34,254.00			100.00	17,300.00	82.00	14,186.00
(d)	103	EA.	350# WATERTIGHT			140.00	14,420.00			218.50	22,505.50			135.00	13,905.00	105.00	10,815.00
(e)	13	EA.	VENTED			140.00	1,820.00			248.00	3,224.00			150.00	1,950.00	82.00	1,066.00
SUB-TOTAL, ITEM NOS. 20 TO 24, INCL.							49,950.00				81,648.00				43,315.00		33,482.00
25.	1	L.S.	UPPER MIDDLE OCONEE PUMPING STATION			L.S.	25,000.00	L.S.			15,100.00			L.S.	44,000.00	L.S.	42,000.00
26.			PIERS TYPE "A-1"														
(a)	10	EA.	0' - 4' HIGH			550.00	5,500.00			500.00	5,000.00			200.00	2,000.00	100.00	1,000.00
(b)	2	EA.	4' - 6' HIGH			750.00	1,500.00			600.00	1,200.00			300.00	600.00	150.00	300.00
(c)	4	EA.	6' - 8' HIGH			950.00	3,800.00			700.00	2,800.00			480.00	1,920.00	175.00	700.00
27.			PIERS TYPE "A-3"														
(a)	1	EA.	8" - 10" HIGH			1,000.00	1,000.00			1,100.00	1,100.00			2,200.00	2,200.00	200.00	200.00
(b)	4	EA.	10" - 12" HIGH			1,200.00	4,800.00			1,250.00	5,000.00			2,500.00	10,000.00	250.00	1,000.00
(c)	1	EA.	12" - 14" HIGH			1,400.00	1,400.00			1,300.00	1,300.00			2,700.00	2,700.00	300.00	300.00

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V. P. LUSTER

*-DENOTES CORRECTED FIGURE

TABULATION OF BIDS

FOR CONSTRUCTING SEWERAGE SYSTEM IMPROVEMENTS CONTRACT "G" DIVISION ONE & DIVISION TWO FOR THE CITY OF ATHENS, GEORGIA

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT No. C130351

BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977

TABULATION OF BIDS

CONTRACTOR				W.L. CAREY, GEN. CONTR., INC. ROYSTON, GA.		JOHN I. STEPHENS, INC. CILBURN, GA.		TOMMY L. GRIFFIN PLBG. & HTG. CO. MACON, GA.		SERVICE CONSTRUCTION CO., INC. NASHVILLE, TENN. EAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.	
BIDDER'S LICENSE											
CONTRACTOR'S LICENSE											
BID BOND / CERTIFIED CHECK				10% B.B.		10% B.B.		10% B.B.		10% B.B.	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE / TOTAL AMOUNT		UNIT PRICE / TOTAL AMOUNT		UNIT PRICE / TOTAL AMOUNT		UNIT PRICE / TOTAL AMOUNT	
28.			RAILROAD CROSSING								
(a)	51	L.F.	48" TUNNEL LINER - NE GA. R/R STA. 105+53.5 TO STA. 106+04.5 (MIDDLE OCONEE INT.)	450.00	22,950.00	100.00	50,700.00	323.00	16,473.00	300.00	15,300.00
29.			41 HIWAY CROSSINGS								
(a)	50	L.F.	24" STEEL CASING - .500 WALL STA. 95+90 TO STA. 96+40 (STOCKADE CREEK INT.)	45.00	2250.00	100.00	5,000.00	87.50	4,375.00	115.00	5,750.00
30.			RIVER CROSSINGS								
(a)	1	L.S.	24" D.I. PIPE, INCL. STL. SHEET PILING & CRUSHED STONE BEDDING - STA. 102+08 TO STA. 103+30 (MIDDLE OCONEE RIVER @ U.M.O.L. INT.)	250,000	250,000.00	1.00	1.00	106,000	106,000.00	71,000.	71,000.00
(b)	1	L.S.	36" D.I. PIPE, INCL. STL. SHEET PILING & CONC. BEDDING - STA. 8+30 TO STA. 9+94 (MIDDLE OCONEE RIVER @ McNUTT CLINT.)	250,000	250,000.00	75,000.	75,000.00	122,383	122,383.00	81,000.	81,000.00
(c)	1	L.S.	20" STEEL PIPE ON PIERS - 0.500 WALL - STA. 7+87 TO STA. 10+00 (MIDDLE OCONEE RIVER @ MITCHELL BRIDGE ROAD)	75,000.	75,000.00	1.00	1.00	43,000.	43,000.00	30,000	30,000.00
31.			REMOVE & REPLACE PAVEMENT								
(a)	2,750	L.F.	REMOVE PAVEMENT	1.00	2,750.00	1.00	2,750.00	1.00	2,750.00	1.00	2,750.00
(b)	2,750	L.F.	REPLACE 8" CONC. OR 12" SOIL CEMENT BASE COURSE	6.00	16,500.00	20.00	55,000.00	6.00	16,500.00	10.00	27,500.00
(c)	2,750	L.F.	REPLACE HOT MIX ASPHALT	3.00	8,250.00	2.75	7,562.50	2.00	5,500.00	6.00	16,500.00
32.	11,300	C.Y.	ROCK EXCAVATION	20.00	226,000.00	20.00	226,000.00	18.00	203,400.00	20.00	226,000.00
33.	750	C.Y.	EARTH FILL OVER SEWER	4.50	3,375.00	5.00	3,750.00	3.00	2,250.00	2.00	1,500.00
34.	800	C.Y.	CHANNEL EXCAVATION	3.50	2,800.00	4.00	3,200.00	5.00	4,000.00	6.00	4,800.00
35.	500	C.Y.	RIP-RAP	10.00	5,000.00	12.00	6,000.00	10.00	5,000.00	8.00	4,000.00
SUB-TOTAL, ITEM NOS. 25 TO 35, INCL.					907,875.00		434,162.50		*395,051.00		531,600.00
36.			EXTRA WORK IF ORDERED BY ENGINEER								
(a)	20	C.Y.	CONC. FOR PIPE BEDDING, PLUGGING PIPE OR PIPE ENCASEMENT	60.00	1,200.00	150.00	3,000.00	100.00	2,000.00	80.00	1,600.00
(b)	4	M&M	TIMBER BRACING OR SHEETING LEFT IN PLACE	0.10	0.40	1,000.00	4,000.00	200.00	800.00	200.00	800.00
(c)	2,000	C.Y.	CRUSHED STONE STAB., INCL. REMOVAL OF UNSUITABLE MATERIAL	12.00	24,000.00	10.00	20,000.00	10.00	20,000.00	10.00	20,000.00
(d)	800	L.F.	REMOVE & REPLACE SOD	5.00	4,000.00	10.00	8,000.00	7.00	5,600.00	6.00	4,800.00
(e)	1,000	L.F.	LAWN GRASSING	2.50	2,500.00	5.00	5,000.00	3.00	3,000.00	3.00	3,000.00
(f)	10,000	L.F.	PASTURE GRASSING	0.75	7,500.00	1.00	10,000.00	1.00	10,000.00	1.00	10,000.00
(g)	500	C.Y.	REMOVE UNSUITABLE TRENCH BACKFILL & REPLACE WITH SUITABLE BACKFILL MATERIAL	3.00	1,500.00	4.00	2,000.00	5.00	2,500.00	6.00	3,000.00
(h)	100	L.F.	PIN PILING FOR PIERS OR MANHOLE	10.00	1,000.00	25.00	2,500.00	10.00	1,000.00	10.00	1,000.00
(i)	10	C.Y.	CLASS "A" CONC. FOR MANHOLES ON PILING	250.00	2,500.00	300.00	3,000.00	100.00	1,000.00	100.00	1,000.00
(j)	100	L.S.	REINFORCING STEEL FOR M.H. ON PILING	0.50	50.00	0.25	25.00	0.50	50.00	0.30	30.00
SUB-TOTAL, ITEM NO. 36					44,250.40		57,525.00		45,950.00		45,230.00
TOTAL - DIVISION ONE, ITEM NOS. 1 TO 36 INCL., USING LOWEST COST MATERIALS					*2,611,307.90		2,806,346.60		*2,789,327.70		2,827,727.00

DIVISION TWO
SEWER & APPURTENANCES

				CLAY PIPE	CONC. PIPE	CLAY PIPE	CONC. PIPE	CLAY PIPE	CONC. PIPE	CLAY PIPE	CONC. PIPE
1.			36" PIPE SEWER								
(a)	1,100	L.F.	10'-12' CUT		37.00 / 42,700.00	60.50 / 66,550.00	44.50 / 48,950.00		55.00 / 60,500.00		55.00 / 60,500.00
(b)	200	L.F.	12'-14' CUT		40.00 / 8,000.00	62.50 / 12,500.00	48.50 / 9,700.00		60.00 / 12,000.00		59.00 / 11,800.00
(c)	50	L.F.	14'-16' CUT		42.00 / 2,100.00	64.50 / 3,225.00	50.50 / 2,525.00		65.00 / 3,250.00		60.00 / 3,000.00
(d)	50	L.F.	16'-18' CUT		44.00 / 2,200.00	68.50 / 3,425.00	54.50 / 2,725.00		70.00 / 3,500.00		62.00 / 3,100.00
2.			30" PIPE SEWER								
(a)	250	L.F.	0'-4' CUT		30.00 / 7,500.00	44.00 / 11,000.00	34.00 / 8,500.00		41.15 / 10,287.50		40.00 / 10,000.00
(b)	700	L.F.	4'-6' CUT	NO BID	30.00 / 21,000.00	45.00 / 31,500.00	35.00 / 24,500.00	NO BID	41.25 / 28,875.00	NO BID	41.00 / 28,700.00
(c)	900	L.F.	6'-8' CUT		31.00 / 27,900.00	46.00 / 41,400.00	36.00 / 32,400.00		43.00 / 38,700.00		43.00 / 38,700.00
(d)	1,500	L.F.	8'-10' CUT		32.00 / 48,000.00	47.00 / 70,500.00	37.00 / 55,500.00		45.00 / 67,500.00		45.00 / 67,500.00
(e)	1,050	L.F.	10'-12' CUT		33.00 / 34,650.00	48.00 / 50,400.00	38.00 / 39,900.00		48.00 / 50,400.00		47.00 / 49,350.00
(f)	400	L.F.	12'-14' CUT		34.00 / 13,600.00	50.00 / 20,000.00	41.00 / 16,400.00		52.00 / 20,800.00		51.00 / 20,400.00
(g)	100	L.F.	14'-16' CUT		37.00 / 3,700.00	52.00 / 5,200.00	43.00 / 4,300.00		56.00 / 5,600.00		56.00 / 5,600.00
(h)	100	L.F.	16'-18' CUT		41.00 / 4,100.00	56.00 / 5,600.00	47.00 / 4,700.00		60.00 / 6,000.00		59.00 / 5,900.00
(i)	50	L.F.	18'-20' CUT		46.00 / 2,300.00	60.00 / 3,000.00	51.00 / 2,550.00		65.00 / 3,250.00		62.00 / 3,100.00

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V.P. Luster
V. P. LUSTER

*-DENOTES CORRECTED FIGURE

TABULATION OF BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT No. C130351

BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977

TABULATION OF BIDS

CONTRACTOR				W. L. CAREY, GEN. CONTR., INC. ROYSTON, GA.		JOHN D. STEPHENS, INC. LILBURN, GA.		TOMMY L. GRIFFIN PLBG. & HTG. CO. MACON, GA.		SERVICE CONSTRUCTION CO., INC. NASHVILLE, TENN. EAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.	
BIDDER'S LICENSE											
CONTRACTOR'S LICENSE											
BID BOND / CERTIFIED CHECK				10% B.B.		10% B.B.		10% B.B.		10% B.B.	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
(j)	50	L.F.	20' - 22' CUT			52.00	2,600.00 E	64.00	3,200.00	59.00	2,750.00 E
(k)	50	L.F.	22' - 24' CUT			77.00	3,850.00 E	67.00	3,450.00	64.00	3,200.00 E
(l)	50	L.F.	24' - 26' CUT			102.00	5,100.00 E	74.00	3,700.00	69.00	3,450.00 E
3.			24" PIPE SEWER	CLAY PIPE		CONC. PIPE		CLAY PIPE		CONC. PIPE	
(a)	300	L.F.	0' - 4' CUT			21.00	6,300.00 E	31.00	9,300.00	27.00	8,100.00 E
(b)	4,000	L.F.	4' - 6' CUT			21.00	84,000.00 E	32.00	128,000.00	28.00	112,000.00 E
(c)	4,100	L.F.	6' - 8' CUT			21.50	88,150.00 E	33.00	135,300.00	29.00	118,900.00 E
(d)	4,250	L.F.	8' - 10' CUT			22.00	93,500.00 E	34.00	144,500.00	30.00	127,500.00 E
(e)	2,100	L.F.	10' - 12' CUT			23.00	48,300.00 E	36.00	75,600.00	32.00	67,200.00 E
(f)	550	L.F.	12' - 14' CUT			24.00	13,200.00 E	38.00	20,700.00	35.00	19,250.00 E
(g)	200	L.F.	14' - 16' CUT			26.00	5,200.00 E	41.00	8,200.00	38.00	7,600.00 E
(h)	100	L.F.	16' - 18' CUT			30.00	3,000.00 E	45.00	4,500.00	42.00	4,200.00 E
(i)	300	L.F.	18' - 20' CUT			35.00	10,500.00 E	47.00	14,700.00	46.00	13,800.00 E
(j)	100	L.F.	20' - 22' CUT			40.00	4,000.00 E	53.00	5,300.00	52.50	5,250.00 E
(k)	100	L.F.	22' - 24' CUT	NO BID		52.00	5,200.00 E	57.00	5,700.00	56.50	5,650.00 E
4.			15" PIPE SEWER								
(a)	600	L.F.	0' - 4' CUT			14.00	8,400.00 E	20.00	12,000.00	19.50	11,700.00 E
(b)	4,100	L.F.	4' - 6' CUT			14.00	57,400.00 E	21.00	86,100.00	20.50	84,050.00 E
(c)	7,600	L.F.	6' - 8' CUT			14.50	110,200.00 E	22.00	167,200.00	21.50	163,400.00 E
(d)	4,150	L.F.	8' - 10' CUT			15.50	64,325.00 E	23.00	95,450.00	22.50	93,375.00 E
(e)	2,700	L.F.	10' - 12' CUT			16.50	44,550.00 E	25.00	67,500.00	25.00	67,500.00 E
(f)	500	L.F.	12' - 14' CUT			17.50	8,750.00 E	27.00	13,500.00	27.00	13,500.00 E
(g)	200	L.F.	14' - 16' CUT			18.50	3,700.00 E	29.00	5,800.00	29.00	5,800.00 E
(h)	200	L.F.	16' - 18' CUT			22.00	4,400.00 E	33.00	6,600.00	33.00	6,600.00 E
(i)	50	L.F.	18' - 20' CUT			27.00	1,350.00 E	37.00	1,850.00	37.00	1,850.00 E
SUB-TOTAL, ITEM NOS. 1 TO 4, INCL., USING LOWEST COST MATERIALS							893,925.00				1,199,475.00
5.			12" PIPE SEWER	CLAY PIPE	PVC PIPE			CLAY PIPE	PVC PIPE		
(a)	300	L.F.	0' - 4' CUT	11.00	3,300.00 E			17.00	5,100.00	17.00	5,100.00 E
(b)	950	L.F.	4' - 6' CUT	11.00	10,450.00 E			18.00	17,100.00	18.00	17,100.00 E
(c)	1,650	L.F.	6' - 8' CUT	12.00	19,800.00 E			19.00	31,350.00	19.00	31,350.00 E
(d)	200	L.F.	8' - 10' CUT	13.00	2,600.00 E			20.00	4,000.00	20.00	4,000.00 E
(e)	200	L.F.	10' - 12' CUT	14.00	2,800.00 E			22.00	4,400.00	22.00	4,400.00 E
(f)	300	L.F.	12' - 14' CUT	15.00	4,500.00 E			24.00	7,200.00	24.00	7,200.00 E
(g)	50	L.F.	14' - 16' CUT	18.00	900.00 E			26.00	1,300.00	26.00	1,300.00 E
(h)	50	L.F.	16' - 18' CUT	22.00	1,100.00 E			30.00	1,500.00	30.00	1,500.00 E
6.			8" PIPE SEWER								
(a)	800	L.F.	0' - 4' CUT	9.00	7,200.00 E	NO BID		10.75	8,600.00	10.75	8,600.00 E
(b)	4,300	L.F.	4' - 6' CUT	9.50	40,850.00 E			11.75	50,525.00	11.75	50,525.00 E
(c)	3,900	L.F.	6' - 8' CUT	10.00	39,000.00 E			12.75	49,725.00	12.75	49,725.00 E
(d)	600	L.F.	8' - 10' CUT	11.00	6,600.00 E			13.75	8,250.00	13.75	8,250.00 E
(e)	200	L.F.	10' - 12' CUT	12.00	2,400.00 E			15.75	3,150.00	15.75	3,150.00 E
(f)	150	L.F.	12' - 14' CUT	14.00	2,100.00 E			17.75	2,662.50	17.75	2,662.50 E
(g)	100	L.F.	14' - 16' CUT	16.00	1,600.00 E			19.75	1,975.00	19.75	1,975.00 E
(h)	100	L.F.	16' - 18' CUT	18.00	1,800.00 E			23.75	2,375.00	23.75	2,375.00 E
SUB-TOTAL, ITEM NOS. 5 TO 6, INCL. USING LOWEST COST MATERIALS					147,000.00						199,212.50
7.			30" DUCTILE IRON PIPE								
(a)	46	L.F.	0' - 4' CUT, OR ON PIERS			52.00	2,392.00 E	48.50	2,231.00 E	56.00	2,576.00 E
(b)	5	L.F.	4' - 6' CUT			52.00	260.00 E	49.50	247.50 E	57.00	285.00 E
(c)	21	L.F.	6' - 8' CUT			52.00	1,092.00 E	50.50	1,060.50 E	59.00	1,239.00 E
(d)	5	L.F.	8' - 10' CUT			58.00	290.00 E	51.50	257.50 E	62.00	310.00 E
(e)	5	L.F.	10' - 12' CUT			59.00	295.00 E	53.50	267.50 E	66.00	330.00 E
8.			24" DUCTILE IRON PIPE								
(a)	280	L.F.	0' - 4' CUT, OR ON PIERS			47.00	13,160.00 E	36.50	10,220.00 E	55.00	15,400.00 E
(b)	80	L.F.	4' - 6' CUT			47.00	3,760.00 E	37.50	3,000.00 E	44.65	3,572.00 E
(c)	44	L.F.	6' - 8' CUT			48.00	2,112.00 E	38.50	1,694.00 E	46.65	2,052.60 E
(d)	5	L.F.	8' - 10' CUT			48.00	240.00 E	39.50	197.50 E	48.15	240.75 E
(e)	5	L.F.	10' - 12' CUT			48.00	240.00 E	41.50	207.50 E	50.15	250.75 E
9.			16" DUCTILE IRON PIPE								
(a)	81	L.F.	INSTALLED IN CASING			32.00	2,592.00 E	28.50	2,308.50 E	36.00	2,916.00 E
(b)	149	L.F.	0'-4' CUT, OR ON PIERS			33.00	4,917.00 E	26.50	3,948.50 E	27.50	4,097.50 E

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED. V.P. LUSTER *-DENOTES CORRECTED FIGURE	TABULATION OF BIDS FOR CONSTRUCTING SEWERAGE SYSTEM IMPROVEMENTS CONTRACT "G" DIVISION ONE & DIVISION TWO FOR THE CITY OF ATHENS, GEORGIA WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA	EPA PROJECT No. C130351 BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977 SHEET 5 OF 8

TABULATION OF BIDS

CONTRACTOR	W.L. CAREY, GEN. CONTR., INC. ROYSTON, GA.		JOHN D. STEPHENS, INC. LILBURN, GA		TOMMY L. GRIFFIN PLBG. & HTG. CO MACON, GA.		SERVICE CONSTRUCTION CO., INC NASHVILLE, TENN. EAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.	
BIDDER'S LICENSE								
CONTRACTOR'S LICENSE								
BID BOND/ CERTIFIED CHECK	10% B.B.		10% B.B.		10% B.B.		10% B.B.	

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
(c)	93	L.F.	4'-6' CUT			34.00	3,162.00	27.50	2,557.50	28.00	2,604.00	42.00	3,906.00		
(d)	74	L.F.	6'-8' CUT			35.00	2,590.00	28.00	2,072.00	29.00	2,146.00	44.00	3,256.00		
(e)	26	L.F.	8'-10' CUT			36.00	936.00	29.00	754.00	31.00	806.00	46.00	1,196.00		
(f)	5	L.F.	10'-12' CUT			36.00	180.00	31.00	155.00	34.00	170.00	48.00	240.00		
(g)	10	L.F.	12'-14' CUT			36.00	360.00	33.00	330.00	38.00	380.00	52.00	520.00		
(h)	5	L.F.	14'-16' CUT			36.00	180.00	35.00	175.00	43.00	215.00	56.00	280.00		
(i)	5	L.F.	16'-18' CUT			36.00	180.00	39.00	195.00	48.00	240.00	60.00	300.00		
(j)	15	L.F.	18'-20' CUT			40.00	600.00	43.00	645.00	53.00	795.00	62.00	930.00		
10.			12" CAST OR D.I. PIPE												
(a)	185	L.F.	INSTALLED TUNNEL			18.00	3,330.00	24.50	4,532.50	30.00	5,550.00	36.00	6,660.00		
(b)	46	L.F.	0'-4' CUT, OR ON PIERS			18.00	828.00	21.50	989.00	23.00	1,058.00	36.00	1,656.00		
(c)	10	L.F.	4'-6' CUT			19.00	190.00	22.50	225.00	25.00	250.00	38.00	380.00		
(d)	106	L.F.	6'-8' CUT			20.00	2,120.00	23.50	2,491.00	27.00	2,862.00	40.00	4,240.00		
(e)	20	L.F.	8'-10' CUT			21.00	420.00	24.50	490.00	30.00	600.00	42.00	840.00		
11.			8" CAST OR D.I. PIPE												
(a)	40	L.F.	INSTALLED IN CASING			12.00	480.00	16.00	640.00	28.00	1,120.00	30.00	1,200.00		
(b)	145	L.F.	0'-4' CUT, OR ON PIERS			13.00	1,885.00	14.00	2,030.00	18.00	2,610.00	30.00	4,350.00		
(c)	79	L.F.	4'-6' CUT			14.00	1,106.00	15.00	1,185.00	20.00	1,580.00	31.00	2,449.00		
(d)	95	L.F.	6'-8' CUT			15.00	1,425.00	16.00	1,520.00	22.00	2,090.00	32.00	3,040.00		
12.			CONC. COLLARS FOR JOINTING SEWER PIPE TO IRON PIPE												
(a)	4	EA.	30" PIPE			500.00	2,000.00	150.00	600.00	400.00	1,600.00	300.00	1,200.00		
(b)	17	EA.	24" PIPE			250.00	4,250.00	125.00	2,125.00	150.00	2,550.00	250.00	4,250.00		
(c)	12	EA.	15" PIPE			250.00	3,000.00	100.00	1,200.00	130.00	1,560.00	175.00	2,100.00		
(d)	1	EA.	12" PIPE			200.00	200.00	75.00	75.00	120.00	120.00	150.00	150.00		
(e)	7	EA.	8" PIPE			200.00	1,400.00	50.00	350.00	100.00	700.00	100.00	700.00		
SUB-TOTAL, ITEM NOS. 7 TO 12, INCL							62,172.00		50,976.00		64,875.60		79,813.00		
13.			6'-0" DIA. MANHOLES												
(a)	1	EA.	6'-8' CUT			1,000.00	1,000.00	975.00	975.00	1,150.00	1,150.00	1,400.00	1,400.00		
(b)	2	EA.	10'-12' CUT			1,200.00	2,400.00	1,075.00	2,150.00	1,400.00	2,800.00	1,800.00	3,600.00		
(c)	1	EA.	12'-14' CUT			1,400.00	1,400.00	1,175.00	1,175.00	1,700.00	1,700.00	2,000.00	2,000.00		
14.			5'-0" DIA. MANHOLE												
(a)	1	EA.	4'-6' DEEP			600.00	600.00	800.00	800.00	700.00	700.00	1,000.00	1,000.00		
(b)	2	EA.	6'-8' DEEP			760.00	1,520.00	825.00	1,650.00	750.00	1,500.00	1,100.00	2,200.00		
(c)	3	EA.	8'-10' DEEP			920.00	2,760.00	875.00	2,625.00	900.00	2,700.00	1,200.00	3,600.00		
(d)	4	EA.	10'-12' DEEP			1,080.00	4,320.00	950.00	3,800.00	1,050.00	4,200.00	1,300.00	5,200.00		
(e)	3	EA.	12'-14' DEEP			1,240.00	3,720.00	1,025.00	3,075.00	1,300.00	3,900.00	1,400.00	4,200.00		
(f)	3	EA.	14'-16' DEEP			1,400.00	4,200.00	1,100.00	3,300.00	1,500.00	4,500.00	1,500.00	4,500.00		
(g)	1	EA.	18'-20' DEEP			1,700.00	1,700.00	1,225.00	1,225.00	2,000.00	2,000.00	1,700.00	1,700.00		
(h)	1	EA.	20'-24' DEEP			1,850.00	1,850.00	1,350.00	1,350.00	2,500.00	2,500.00	2,000.00	2,000.00		
(i)	1	EA.	24'-26' DEEP			2,000.00	2,000.00	1,425.00	1,425.00	3,000.00	3,000.00	2,200.00	2,200.00		
15.			4'-0" DIA. MANHOLES												
(a)	3	EA.	0'-4' DEEP			200.00	600.00	525.00	1,575.00	300.00	900.00	375.00	1,125.00		
(b)	23	EA.	4'-6' DEEP			300.00	6,900.00	575.00	13,225.00	350.00	8,050.00	455.00	10,465.00		
(c)	51	EA.	6'-8' DEEP			400.00	20,400.00	650.00	33,150.00	420.00	21,420.00	535.00	27,285.00		
(d)	46	EA.	8'-10' DEEP			500.00	23,000.00	725.00	33,350.00	500.00	23,000.00	615.00	28,290.00		
(e)	11	EA.	10'-12' DEEP			600.00	6,600.00	800.00	8,800.00	610.00	6,710.00	695.00	7,645.00		
(f)	16	EA.	12'-14' DEEP			700.00	11,200.00	875.00	14,000.00	715.00	11,440.00	775.00	12,400.00		
(g)	7	EA.	14'-16' DEEP			800.00	5,600.00	950.00	6,650.00	800.00	5,600.00	885.00	6,195.00		
(h)	4	EA.	16'-18' DEEP			900.00	3,600.00	1,025.00	4,100.00	910.00	3,640.00	935.00	3,740.00		
(i)	2	EA.	18'-20' DEEP			1,000.00	2,000.00	1,100.00	2,200.00	1,075.00	2,150.00	1,015.00	2,030.00		
(j)	4	EA.	20'-22' DEEP			1,100.00	4,400.00	1,175.00	4,700.00	1,300.00	5,200.00	1,095.00	4,380.00		
(k)	4	EA.	22'-24' DEEP			1,200.00	4,800.00	1,250.00	5,000.00	1,550.00	6,200.00	1,750.00	4,700.00		
(l)	2	EA.	24'-26' DEEP			1,300.00	2,600.00	1,325.00	2,650.00	2,000.00	4,000.00	1,255.00	2,510.00		
(M)	4	EA.	26'-28' DEEP			1,400.00	5,600.00	1,400.00	5,600.00	3,000.00	12,000.00	1,400.00	5,600.00		
SUB-TOTAL, ITEM NOS. 13 TO 15, INCL.							124,770.00		158,550.00		140,960.00		147,965.00		
16.			DROP CONN. TO M.H. FITTINGS, FOUNDATION & ENCASEMENT MIN. DIMENSION "A"												
(a)	1	EA	24" x 21"			650.00	650.00	800.00	800.00	800.00	800.00	250.00	250.00		
(b)	2	EA.	15" x 12"			550.00	1,100.00	600.00	1,200.00	600.00	1,200.00	125.00	250.00		

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED.

V.P. LUSTER

*-DENOTES CORRECTED FIGURE

TABULATION OF BIDS

FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT No. C130351

BIDS RECEIVED 2:00 P.M., LOCAL TIME, AUGUST 11, 1977

TABULATION OF BIDS

CONTRACTOR				W.L. CAREY, GEN. CONTR., INC. ROYSTON, GA.				JOHN D. STEPHENS, INC. LILBURN, GA.				TOMMY L. GRIFFIN PLBG. & HTG. CO. MACON, GA.				SERVICE CONSTRUCTION CO., INC. NASHVILLE, TENN. FAST CONSTRUCTION CO., INC. BIRMINGHAM, ALA.			
BIDDER'S LICENSE																			
CONTRACTOR'S LICENSE																			
BID BOND/ CERTIFIED CHECK				10% B.B.				10% B.B.				10% B.B.				10% B.B.			
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT	UNIT PRICE	TOTAL AMOUNT
(c)	1	EA.	12" x 10"			450.00	450.00 E			550.00	550.00 E			350.00	350.00 E			100.00	100.00
(d)	1	EA.	10" x 8"			450.00	450.00 E			500.00	500.00 E			325.00	325.00 E			90.00	90.00
(e)	3	EA.	8" x 8"			450.00	1,350.00 E			400.00	1,200.00 E			300.00	900.00 E			80.00	240.00
17.			RISER & ENCASEMENT IN EXCESS OF DIMENSION "A"																
(a)	5	V.F.	21"			100.00	500.00 E			300.00	1,500.00 E			150.00	750.00 E			50.00	250.00
(b)	10.5	V.F.	12"			100.00	1,050.00 E			200.00	2,100.00 E			115.00	1,207.50 E			30.00	315.00
(c)	8.5	V.F.	10"			100.00	850.00 E			200.00	1,700.00 E			80.00	680.00 E			25.00	212.50
(d)	28.5	V.F.	8"			75.00	2,137.50 E			150.00	4,275.00 E			75.00	2,137.50 E			20.00	570.00
18.	3	EA.	CONN. TO EXISTING MANHOLE			300.00	900.00 E			1,000.00	3,000.00 E			350.00	1,050.00 E			1,000.00	3,000.00
19.			CONN. TO EXISTING SEWERS																
(a)	1	EA.	10" CONNECTION			300.00	300.00 E			600.00	600.00 E			300.00	300.00 E			200.00	200.00
(b)	5	EA.	8" CONNECTION			300.00	1,500.00 E			600.00	3,000.00 E			250.00	1,250.00 E			200.00	1,000.00
20.			MANHOLE FRAMES & COVERS (IN PLACE)																
(a)	4	EA.	460 # STANDARD			140.00	560.00 E			220.00	880.00 E			125.00	500.00 E			105.00	420.00
(b)	6	EA.	460 # WATERTIGHT			150.00	900.00 E			241.00	1,446.00 E			140.00	840.00 E			135.00	810.00
(c)	29	EA.	350 # STANDARD			120.00	3,480.00 E			198.00	5,742.00 E			115.00	3,335.00 E			82.00	2,378.00
(d)	133	EA.	350 # WATERTIGHT			140.00	18,620.00 E			218.50	29,060.50 E			125.00	16,625.00 E			105.00	13,965.00
(e)	28	EA.	VENTED			140.00	3,920.00 E			248.00	6,944.00 E			125.00	3,500.00 E			82.00	2,296.00
SUB-TOTAL, ITEM NOS. 16 TO 20, INCL.							38,717.50				64,497.50				35,750.00				26,346.50
21.			PIERS TYPE "A-1"																
(a)	10	EA.	0' - 4' HIGH			550.00	5,500.00 E			500.00	5,000.00 E			600.00	6,000.00 E			100.00	1,000.00
(b)	4	EA.	4' - 6' HIGH			750.00	3,000.00 E			600.00	2,400.00 E			700.00	2,800.00 E			150.00	600.00
(c)	1	EA.	6' - 8" HIGH			950.00	950.00 E			700.00	700.00 E			800.00	800.00 E			175.00	175.00
22.			HIGHWAY CROSSINGS																
(a)	81	L.F.	48" TUNNEL LINER - 12 GAUGE STA. 105+16 TO STA. 105+97 (CEDAR CREEK INT.)			450.00	36,450.00 E			400.00	32,400.00 E			306.00	24,786.00 E			350.00	28,350.00
(b)	40	L.F.	24" STEEL CASING - 0.500 WALL STA. 64+58 TO STA. 64+98 (UPPER CEDAR CREEK INT.)			45.00	1,800.00 E			100.00	4,000.00 E			87.50	3,500.00 E			115.00	4,600.00
(c)	185	L.F.	48" TUNNEL LINER - 12 GAUGE STA. 209+32 TO STA. 211+17 (CEDAR CREEK INT.)			450.00	83,250.00 E			100.00	18,500.00 E			300.00	55,500.00 E			350.00	64,750.00
23.			REMOVE & REPLACE PAVEMENT																
(a)	1,000	L.F.	REMOVE PAVEMENT			1.00	1,000.00 E			1.00	1,000.00 E			2.50	2,500.00 E			1.00	1,000.00
(b)	1,000	L.F.	REPLACE 8" CONC. OR 12" SOIL CEMENT BASE COURSE			6.00	6,000.00 E			20.00	20,000.00 E			10.00	10,000.00 E			10.00	10,000.00
C.	1,000	L.F.	REPLACE HOT MIX ASPHALT			3.00	3,000.00 E			2.75	2,750.00 E			2.50	2,500.00 E			6.00	6,000.00
24.	8,200	C.Y.	ROCK EXCAVATION			20.00	164,000.00 E			20.00	164,000.00 E			20.00	164,000.00 E			20.00	164,000.00
25.	100	C.Y.	EARTH FILL OVER SEWERS			4.50	450.00 E			5.00	500.00 E			5.00	500.00 E			2.00	200.00
26.	400	C.Y.	CHANNEL EXCAVATION			3.50	1,400.00 E			4.00	1,600.00 E			5.00	2,000.00 E			6.00	2,400.00
SUB-TOTAL, ITEM NOS. 21 TO 26, INCL.							306,800.00				252,850.00				274,884.00				283,075.00
27.			EXTRA WORK IF ORDERED BY ENGINEER																
(a)	20	C.Y.	CONC. FOR PIPE BEDDING, PLUGGING PIPE OR PIPE ENCASEMENT			60.00	1,200.00 E			150.00	3,000.00 E			100.00	2,000.00 E			80.00	1,600.00
(b)	4	MBM	TIMBER BRACING OR SHEETING, LEFT IN PLACE			0.10	0.40 E			1,000.00	4,000.00 E			200.00	800.00 E			200.00	800.00
(c)	1,300	C.Y.	CRUSHED STONE STAB., INCL. REMOVAL OF UNSUITABLE MATERIAL			12.00	15,600.00 E			10.00	13,000.00 E			12.00	15,600.00 E			10.00	13,000.00
(d)	500	L.F.	REMOVE & REPLACE 500			5.00	2,500.00 E			10.00	5,000.00 E			7.00	3,500.00 E			6.00	3,000.00
(e)	1,000	L.F.	LAWN GRASSING			2.50	2,500.00 E			5.00	5,000.00 E			2.00	2,000.00 E			3.00	3,000.00
(f)	10,000	L.F.	PASTURE GRASSING			0.75	7,500.00 E			1.00	10,000.00 E			1.00	10,000.00 E			1.00	10,000.00
(g)	500	C.Y.	REMOVE UNSUITABLE TRENCH BACKFILL & REPLACE WITH SUITABLE BACKFILL MATERIAL			3.00	1,500.00 E			4.00	2,000.00 E			4.00	2,000.00 E			6.00	3,000.00
(h)	100	L.F.	PIN PILING FOR PIERS OR MANHOLES			10.00	1,000.00 E			25.00	2,500.00 E			7.00	700.00 E			10.00	1,000.00
(i)	10	C.Y.	CLASS "A" CONC. FOR MANHOLES ON PILING			250.00	2,500.00 E			300.00	3,000.00 E			100.00	1,000.00 E			100.00	1,000.00
(j)	100	LB.	REINFORCING STEEL FOR M.H. ON PILING			0.50	50.00 E			0.25	25.00 E			0.50	50.00 E			0.30	30.00
(k)	100	S.Y.	RIP RAP			10.00	1,000.00 E			12.00	1,200.00 E			10.00	1,000.00 E			8.00	800.00
SUB-TOTAL, ITEM NO. 27							*35,350.40				48,725.00				38,650.00				37,230.00
TOTAL - DIVISION TWO, ITEM NOS. 1-27, INCL., USING LOWEST COST MATERIALS							1,608,73490				1,974,286.00				1,951,456.60				2,084,629.50
TOTAL - DIVISION ONE & TWO, USING LOWEST COST MATERIALS							*4,220,042.80				4,780,632.60				*4,740,78430				4,912,356.50
DEDUCTION FOR AWARD OF DIVISION ONE & DIVISION TWO AS A SINGLE CONTRACT.							375,000.00				75,000.00				-0-				30,000.00

THIS TABULATION IS CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF BIDS RECEIVED AT THE TIME AND PLACE STATED.

V. P. LUSTER

*-DENOTES CORRECTED FIGURE

TABULATION OF BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
DIVISION ONE & DIVISION TWO
FOR
THE CITY OF ATHENS, GEORGIA.

WIEDEMAN AND SINGLETON, ENGINEERS, ATLANTA, GEORGIA

EPA PROJECT No. C130351

BIDS RECEIVED 2:00 P.M. LOCAL TIME, AUGUST 11, 1971